

Integrator's Reference Manual for Polycom HDX Systems

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Room Integration

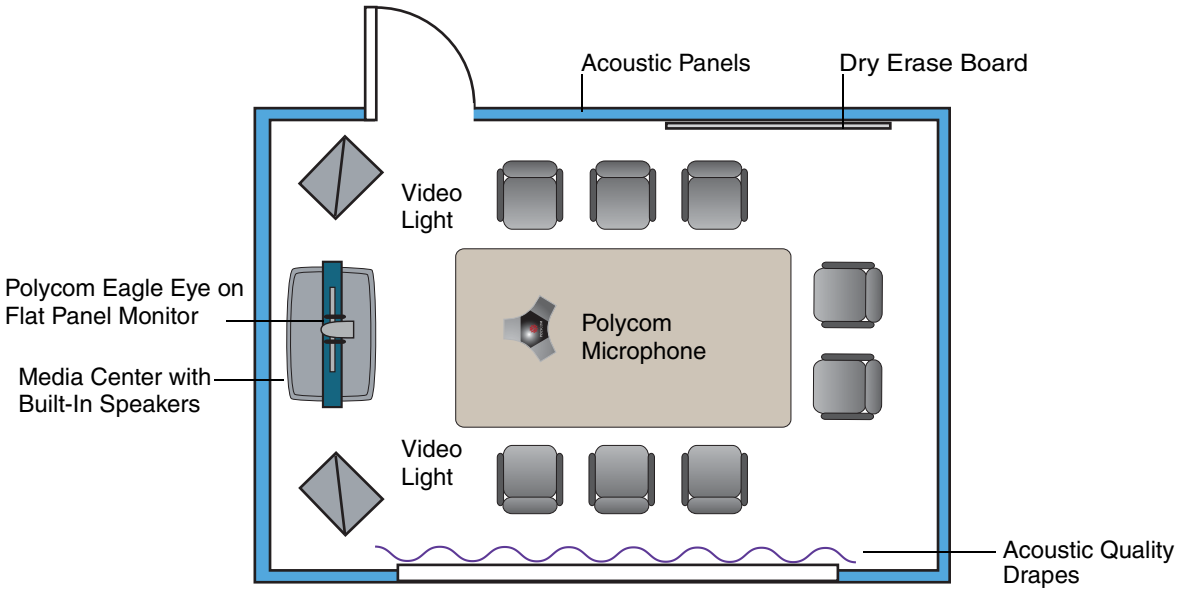
Setting Up a Room for Video Conferencing

For detailed information about setting up a room for video conferencing, refer to Room Design and Layout on page A-1.

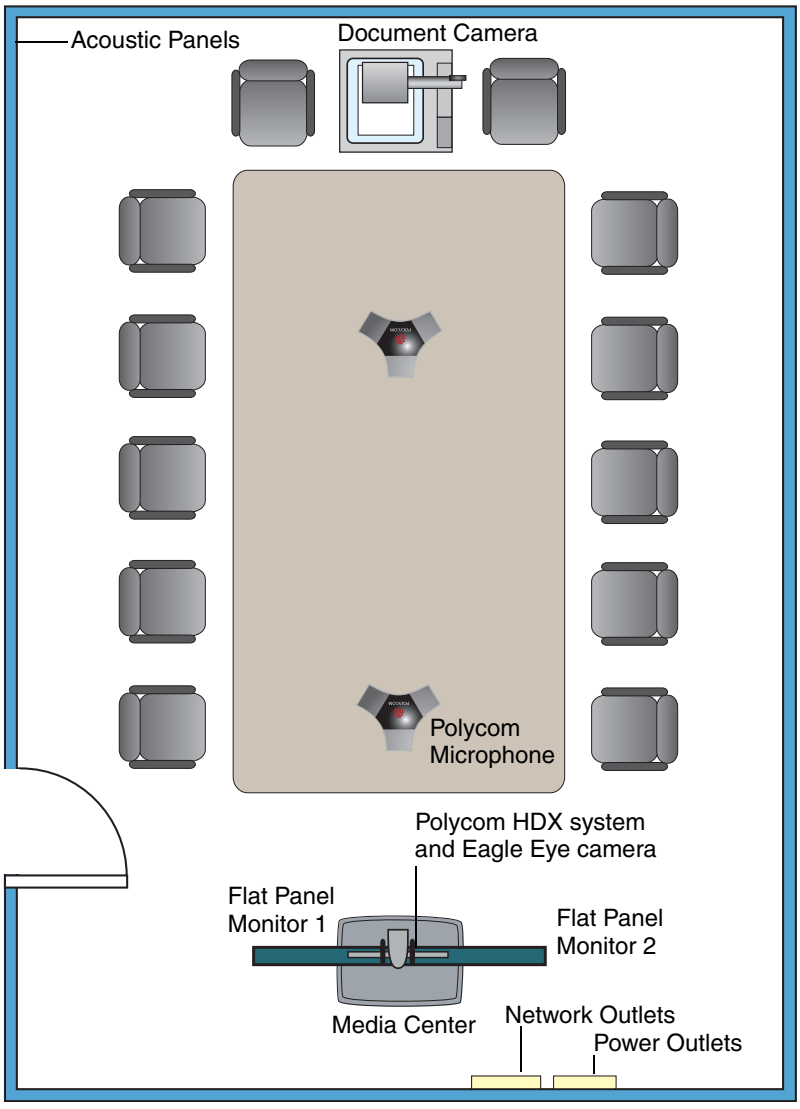
Room Layout Examples

Use the following diagrams as examples for setting up a conference room with Polycom® HDX systems. Polycom recommends that you contract an experienced contractor to assure all the components operate as a single cohesive system.

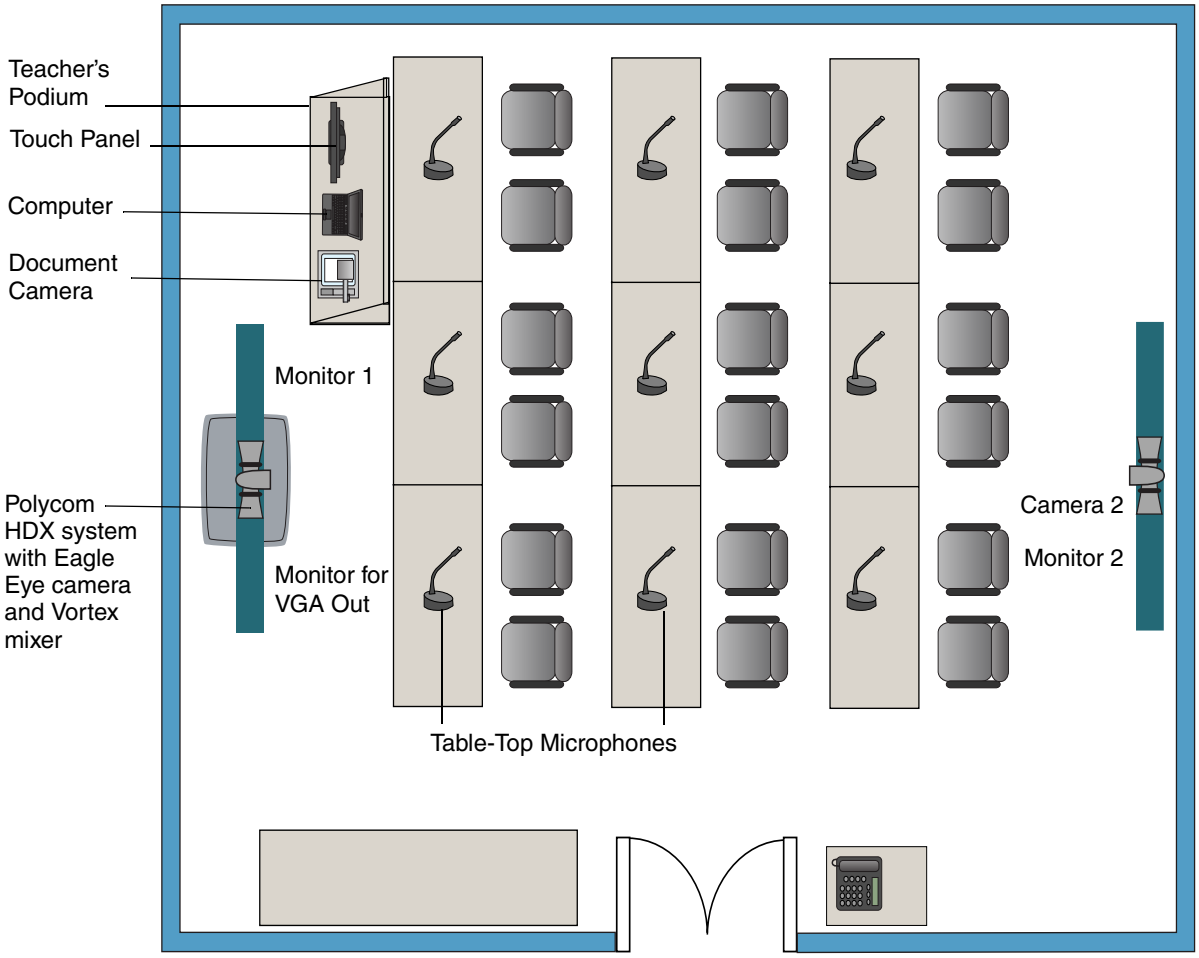
Small Conference Room



Large Conference Room



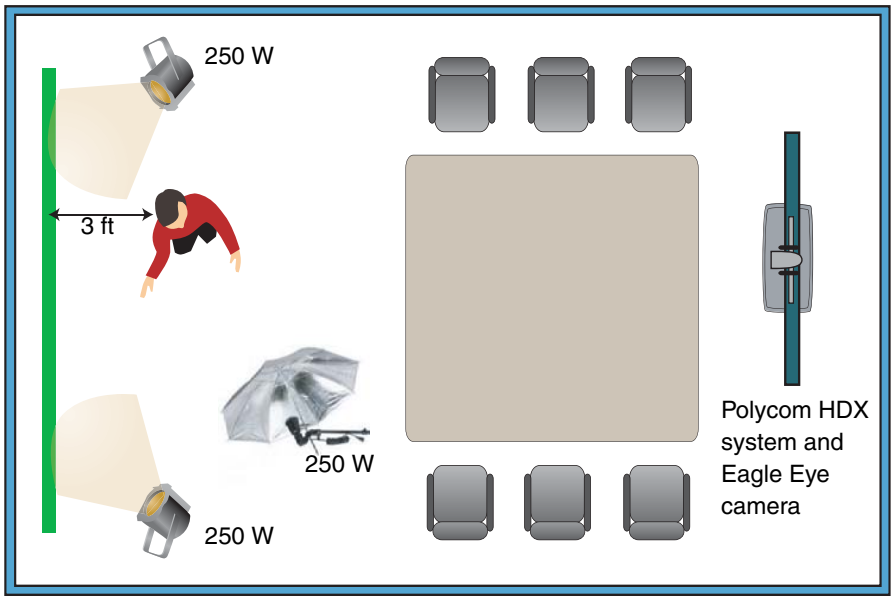
Classroom


Teacher's Podium
Touch Panel
Computer
Document Camera
Monitor 1
Polycom HDX system with Eagle Eye camera and Vortex mixer
Monitor for VGA Out
Table-Top Microphones
Camera 2
Monitor 2

Setting Up the Room for People On Content

For the best results, follow these guidelines for setting up People On Content™:

- Use the Polycom Eagle Eye camera.
- Create a flat, consistent background color using a screen or matte-finish paint in green or blue. Make sure the background does not have shadows or glare.
- Make sure that the background and the presenter are well lit. For example, use a minimum of two 250 W halogen lights on the background and one on the presenter.
- Experiment with different room and lighting arrangements until the best results are achieved.



You can find more information about configuring and using People On Content on the Polycom web site.

Integrating Video

The following sections describe how to connect cameras to Polycom HDX systems. After you connect a camera to a Polycom HDX system, refer to the *Administrator's Guide for Polycom HDX Systems* for information about configuring the camera options in the user interface.

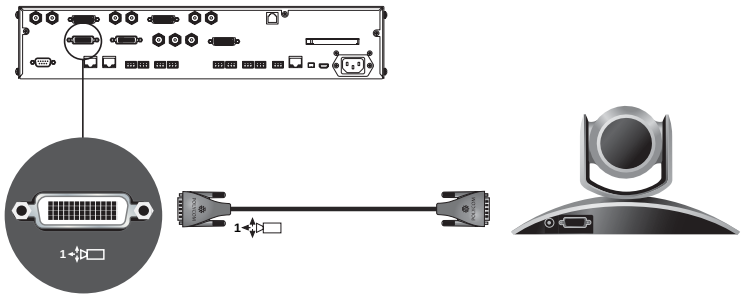
Connecting Polycom Cameras

You can connect Polycom HDX systems to a Polycom Eagle Eye, PowerCam™ or PowerCam Plus camera from Polycom, or to other supported cameras. You must use a PowerCam Plus as the main camera, not as a secondary camera. Refer to the release notes for a list of supported PTZ cameras.

Polycom Eagle Eye as the Main Camera up to 30 ft Away

You can connect a Polycom Eagle Eye camera (part number 8200-23600-001 or 8200-23610-001) to a Polycom HDX system as the main camera using:

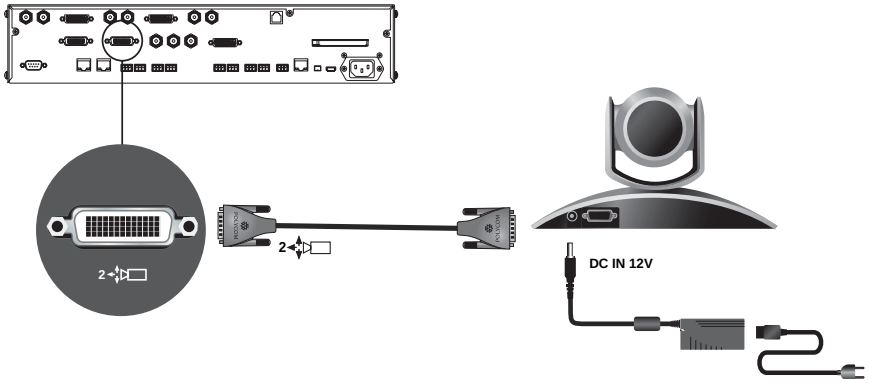
- HDCI analog camera cable shown on page 2-16



Polycom Eagle Eye as the Second Camera up to 30 ft Away

You can connect a Polycom Eagle Eye camera (part number 8200-23600-001 or 8200-23610-001) to a Polycom HDX system as the second camera using:

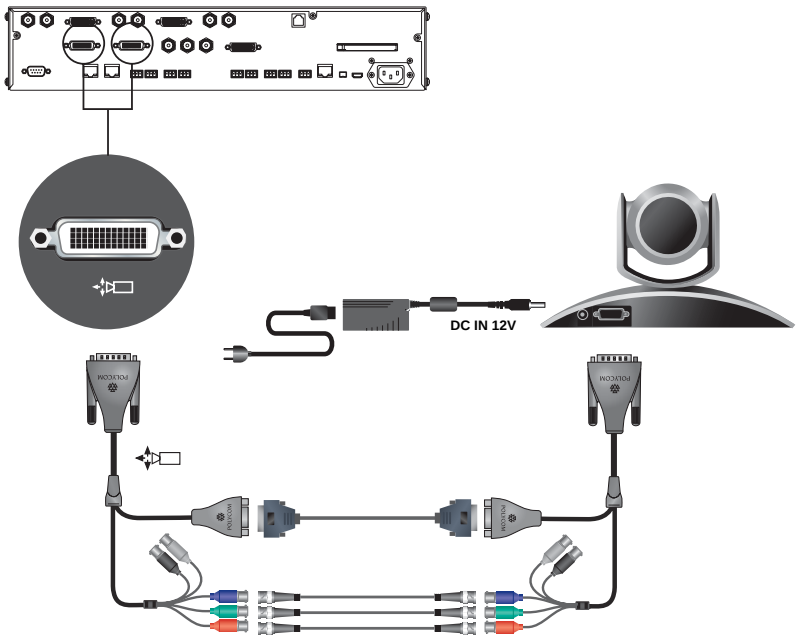
- HDCI analog camera cable shown on page 2-16
- Power supply. Use only the approved power supply from Polycom (part number 1465-52621-036). Do not exceed 12 Volts at 3 Amps.



Polycom Eagle Eye as the Main or Second Camera up to 100 ft Away

You can connect a Polycom Eagle Eye camera (part number 8200-23600-001 or 8200-23610-001) to a Polycom HDX system more than 30 ft away using:

- Two HDCI camera breakout cables shown on page 2-17
- Analog cables
- DB-9 serial cable
- Power supply. Use only the approved power supply from Polycom (part number 1465-52621-036). Do not exceed 12 Volts at 3 Amps.

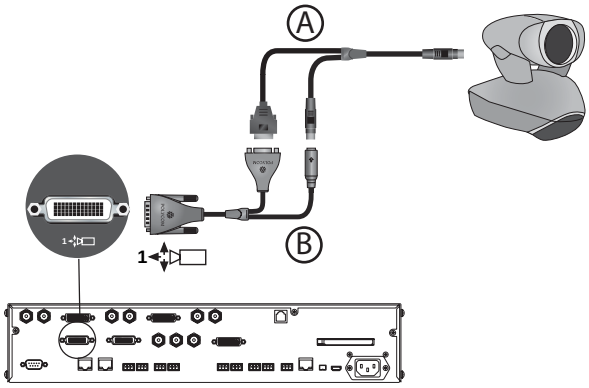


Optional, up to 100 ft

PowerCam as the Main Camera up to 10 ft Away

You can connect a PowerCam (part number 2215-50370-001) to a Polycom HDX system as the main camera up to 10 ft away using:

- A—PowerCam Primary cable shown on page 2-24
- B—HDCI PowerCam Plus adapter cable shown on page 2-21



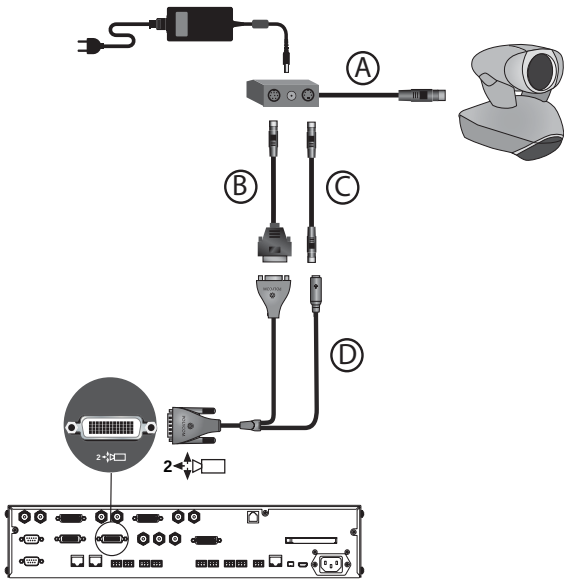
PowerCam as the Secondary Camera

The following kits are available, which include the power supply, PowerCam Break-Out cable, PowerCam/VISCA Control cable, and S-Video cable:

- 7230-22231-001 (50 ft)
- 7230-22232-001 (100 ft)

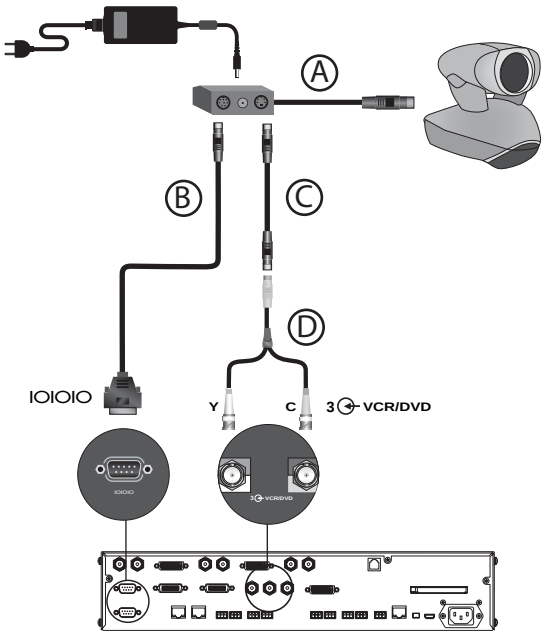
You can connect a PowerCam (part number 2215-50370-001) to a Polycom HDX system as the second camera using:

- A—PowerCam Break-Out cable shown on page 2-25
- B—PowerCam/VISCA Control cable shown on page 2-26
- C—S-Video cable shown on page 2-9
- D—HDCI PowerCam Plus adapter cable shown on page 2-21
- Power Supply (part number 1465-52621-036)



You can connect a PowerCam (part number 2215-50370-001) to a Polycom HDX system as the third camera using:

- A—PowerCam Break-Out cable shown on page 2-25
- B—8-pin mini-DIN to DB-9 cable shown on page 2-27
- C—S-Video cable shown on page 2-9
- D—S-Video to BNC adapter shown on page 2-11
- Power Supply (part number 1465-52621-036)



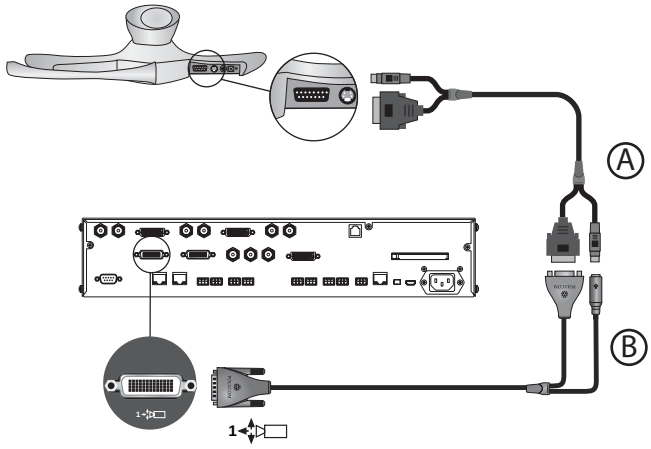
If you connect a PTZ camera to a serial port, configure the following settings on the Serial Ports screen:

1. Set **RS-232 Mode** to **Camera PTZ**.
2. Set **Camera Control** to the camera input you are using.

PowerCam Plus as the Main Camera up to 10 ft Away

You can connect a PowerCam Plus (part number 2215-50200-001) to a Polycom HDX system as the main camera up to 10 ft away using:

- A—PowerCam Plus Primary cable shown on page 2-20
- B—HDCI PowerCam Plus adapter cable shown on page 2-21



Polycom HDX systems do not support automatic camera tracking with the PowerCam Plus camera.

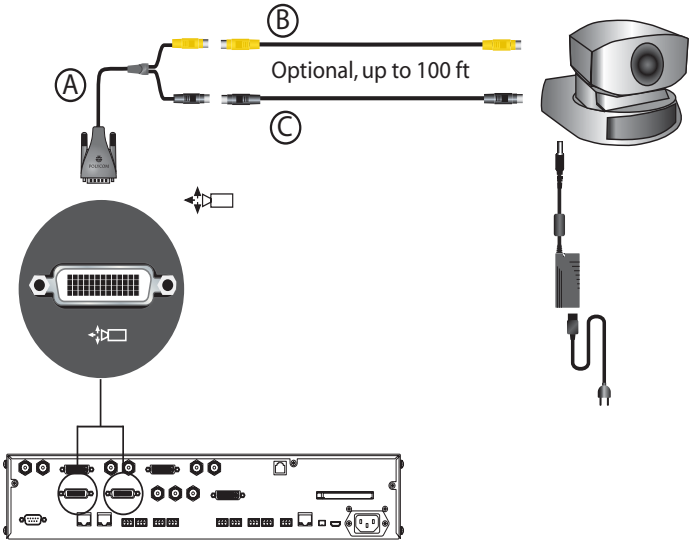
Connecting Sony and ELMO Cameras

Refer to the release notes for a list of supported Pan/Tilt/Zoom (PTZ) cameras.

To connect a Sony or ELMO PTZ camera to a Polycom HDX system as the main or second camera:

You can connect a Sony or ELMO PTZ camera to a Polycom HDX system using:

- A—HDCI Sony VISCA camera adapter cable shown on page 2-23
- B—S-Video cable (optional)
- C—VISCA cable (optional)



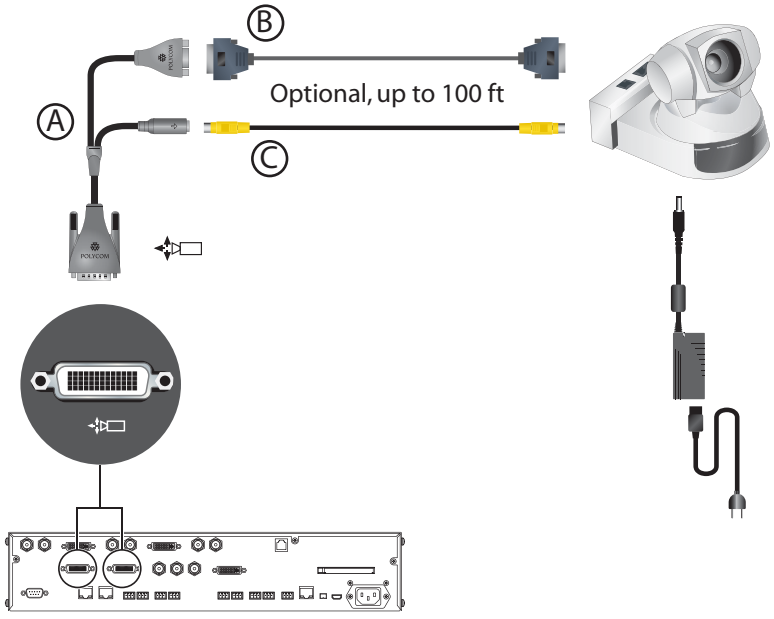
Connecting Vaddio and Canon Cameras

Refer to the release notes for a list of supported Pan/Tilt/Zoom (PTZ) cameras.

To connect a Vaddio or Canon PTZ camera to a Polycom HDX system as the main or second camera:

You can connect a Vaddio 70, Vaddio 100, or Canon (with VISCA cable shoe) PTZ camera to a Polycom HDX system using:

- A—HDCI VISCA adapter cable shown on page 2-22
- B—DB-9 serial cable (optional)
- C—S-Video cable (optional)



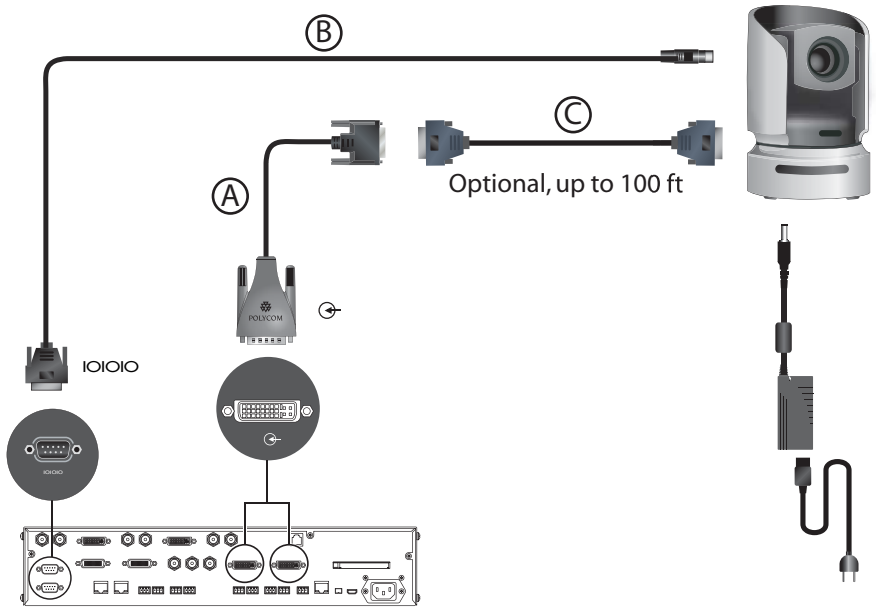
Connecting BRCH700 Cameras

Refer to the release notes for a list of supported Pan/Tilt/Zoom (PTZ) cameras.

To connect a BRCH700 PTZ camera to a Polycom HDX system as the main or second camera:

You can connect a BRCH700 PTZ camera to a Polycom HDX system using:

- A—DVI to VGA cable shown on page 2-12
- B—8-pin mini-DIN to DB-9 cable shown on page 2-27
- C—VGA cable (optional)



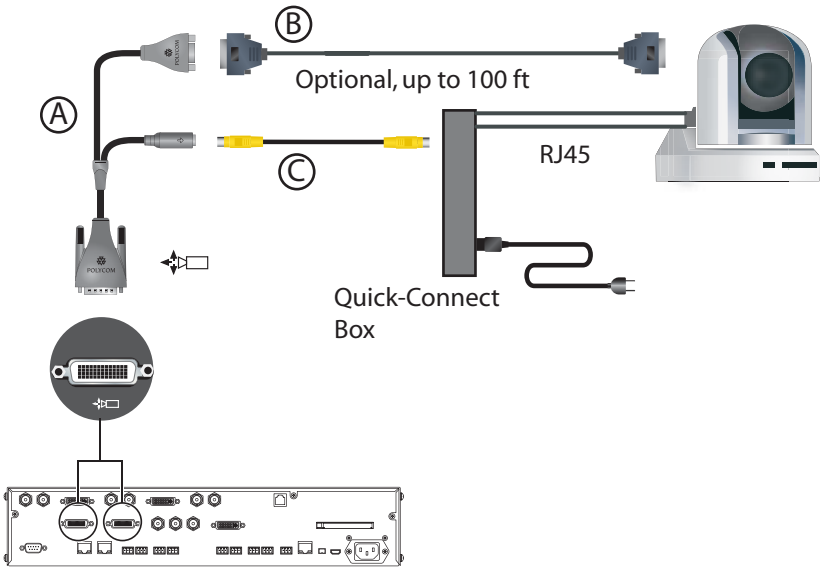
Connecting Vaddio 300 Cameras

Refer to the release notes for a list of supported Pan/Tilt/Zoom (PTZ) cameras.

To connect a Vaddio 300 PTZ camera to a Polycom HDX system as the main or second camera:

You can connect a Vaddio 300 PTZ camera to a Polycom HDX system using:

- A—HDCI VISCA adapter cable shown on page 2-22
- B—DB-9 serial cable (optional)
- C—S-Video cable (optional)



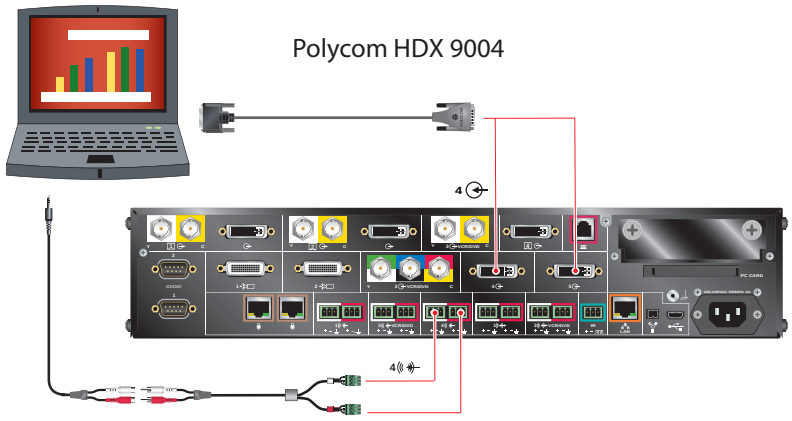
Integrating Audio and Content

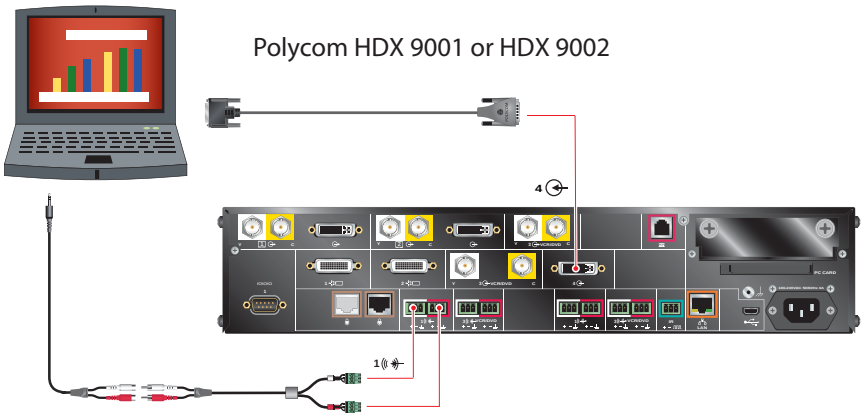
Connecting a Computer to a Polycom HDX System

Connect a Polycom HDX system to a computer using:

- DVI to VGA cable shown on page 2-12
- Audio adapter cable on page 2-34
- 3.5 mm stereo to RCA adapter cable

When you connect a computer to video input 4 and audio input 4 on a Polycom HDX 9004, audio from input 4 is muted unless video input 4 is selected as a video source.





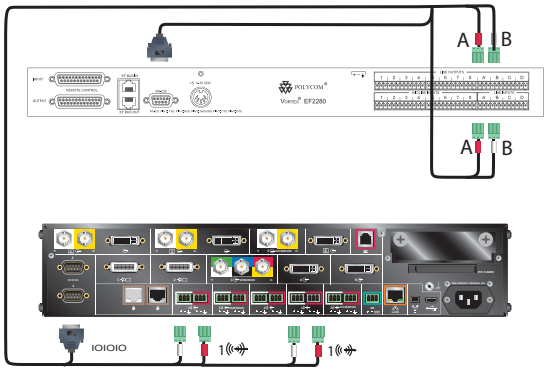
Connecting a Vortex Mixer to a Polycom HDX System

Polycom strongly recommends using Polycom *Instant*Designer™ to get started with your Polycom Vortex® mixer integration. *Instant*Designer resolves many common issues with connections and configuration settings.

To use a Polycom HDX system with audio input from a Vortex mixer, set the **Input Type** to **Line Input** and disable **Echo Canceller**.

Connect a Polycom HDX system to the Vortex mixer using:

- Vortex cable shown on page 2-36



2

Cables

This chapter includes information about cables that can be used with a Polycom HDX system. Please note that drawings and part numbers are provided for reference only. Compliance information is provided for the Restriction of certain Hazardous Substances Directive (RoHS).

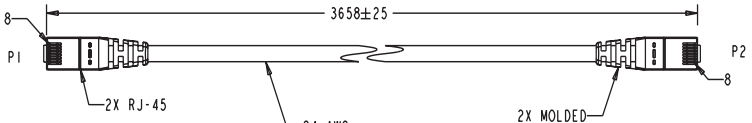
Network Cables

CAT 5e LAN Cable



This cable connects a Polycom HDX system to the LAN. It has orange RJ-45 connectors on both ends. It meets category 5e requirements and is wired according to EIA/TIA-568B. The maximum approved length for this cable is 100 ft (30 m) on an 802 network.

Length	Part Number	RoHS Compliant
12 ft (3.6 m)	2457-23537-001	Yes



WIRING LIST			
P1	P2	T568B Pair	COLOR CODE
1	1	2	WHITE/ORANGE
2	2	2	ORANGE
3	3	3	WHITE/GREEN
4	4	1	BLUE
5	5	1	WHITE/BLUE
6	6	3	GREEN
7	7	4	WHITE/BROWN
8	8	4	BROWN

Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

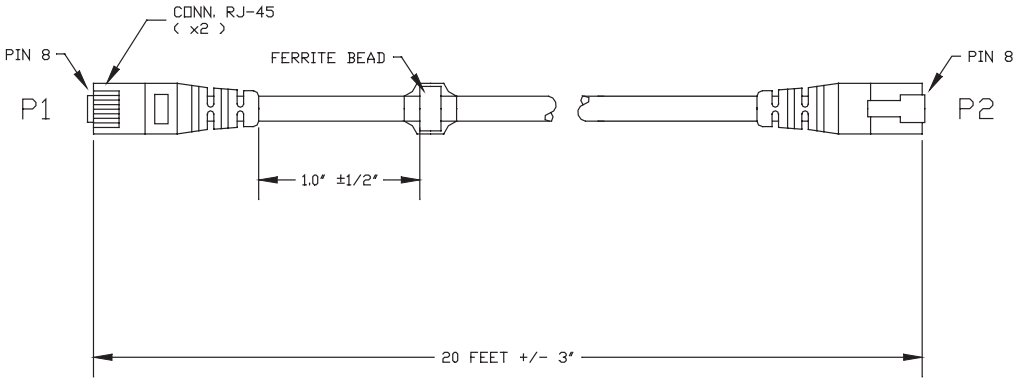
ISDN Cable



This cable connects a Polycom HDX system to a BRI or PRI line. It has clear RJ-45 connectors on both ends and is used with all Polycom HDX systems that have ISDN capability. The maximum approved length for this cable is 50 ft (15 m).

Length	Part Number	RoHS Compliant
20 ft (6.6 m)	2457-08548-001	Yes

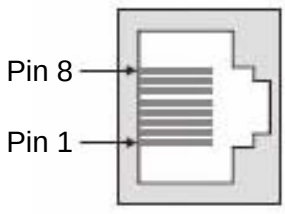
P1 PIN #	P2 PIN #
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8



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PRI Pin Assignments

The following illustration and table show the pin assignments for the PRI port on the Polycom HDX system.



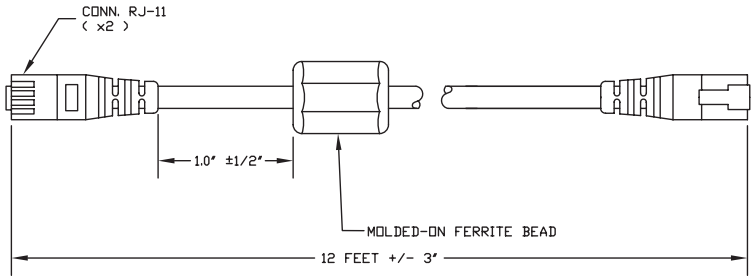
Pin	Signal Name
1	Receive Ring
2	Receive Tip
3	No Connection
4	Transmit Ring
5	Transmit Tip
6	No Connection
7	No Connection
8	No Connection

Analog Telephone (POTS) Cable



This cable connects a Polycom HDX system to an analog telephone line. It has pink RJ-11 connectors on both ends. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
12 ft (3.6 m)	2457-20071-001	Yes



WIRING IS "PIN TO PIN" 1-1, 2-2, ETC.

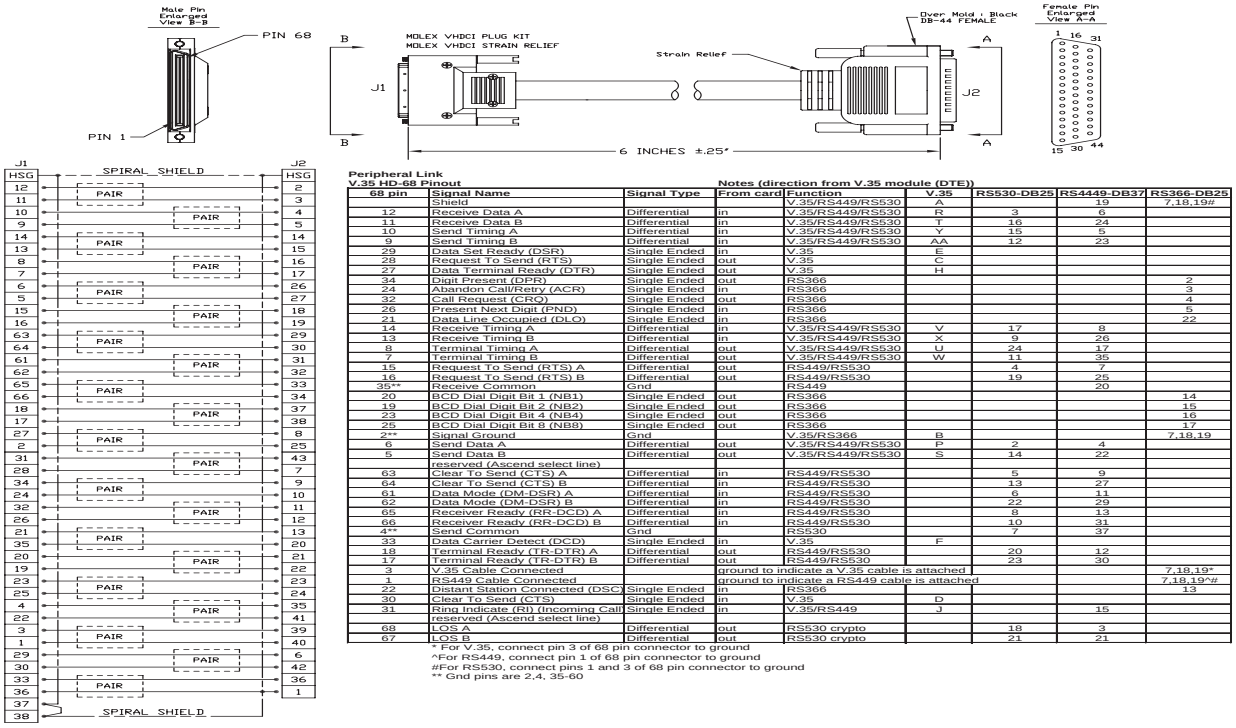
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V.35/RS-449/RS-530 Serial Adapter



This adapter is used when connecting a Polycom HDX system to other third-party network equipment. It adapts the 68-pin interface to an industry standard 44-pin interface used by some network interface equipment. It is used with Polycom HDX systems that have a V.35/RS-449/RS-530 serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
6 in (15.23 cm)	2457-21264-200	Yes



Peripheral Link
V.35 HD-68 Pinout

Notes (direction from V.35 module (DTE))

68 pin	Signal Name	Signal Type	From card	Function	V.35	RS530-DB25	RS4449-DB37	RS366-DB25
	Shield			V.35/RS449/RS530	A		19	7,18,19#
12	Receive Data A	Differential	in	V.35/RS449/RS530	R	3	6	
11	Receive Data B	Differential	in	V.35/RS449/RS530	T	16	24	
10	Send Timing A	Differential	in	V.35/RS449/RS530	Y	15	5	
9	Send Timing B	Differential	in	V.35/RS449/RS530	AA	12	23	
29	Data Set Ready (DSR)	Single Ended	in	V.35	E			
28	Request To Send (RTS)	Single Ended	out	V.35	C			
27	Data Terminal Ready (DTR)	Single Ended	out	V.35	H			
34	Digit Present (DPR)	Single Ended	out	RS366				2
24	Abandon Call/Retry (ACR)	Single Ended	in	RS366				3
32	Call Request (CRQ)	Single Ended	out	RS366				4
26	Present Next Digit (PND)	Single Ended	in	RS366				5
21	Data Line Occupied (DLO)	Single Ended	in	RS366				22
14	Receive Timing A	Differential	in	V.35/RS449/RS530	V	17	8	
13	Receive Timing B	Differential	in	V.35/RS449/RS530	X	9	26	
8	Terminal Timing A	Differential	out	V.35/RS449/RS530	U	24	17	
7	Terminal Timing B	Differential	out	V.35/RS449/RS530	W	11	35	
15	Request To Send (RTS) A	Differential	out	RS449/RS530		4	7	
16	Request To Send (RTS) B	Differential	out	RS449/RS530		19	25	
35**	Receive Common	Gnd		RS449			20	
20	BCD Dial Digit Bit 1 (NB1)	Single Ended	out	RS366				14
19	BCD Dial Digit Bit 2 (NB2)	Single Ended	out	RS366				15
23	BCD Dial Digit Bit 4 (NB4)	Single Ended	out	RS366				16
25	BCD Dial Digit Bit 8 (NB8)	Single Ended	out	RS366				17
2**	Signal Ground	Gnd		V.35/RS366	B			7,18,19
6	Send Data A	Differential	out	V.35/RS449/RS530	P	2	4	
5	Send Data B	Differential	out	V.35/RS449/RS530	S	14	22	
	reserved (Ascend select line)							
63	Clear To Send (CTS) A	Differential	in	RS449/RS530		5	9	
64	Clear To Send (CTS) B	Differential	in	RS449/RS530		13	27	
61	Data Mode (DM-DSR) A	Differential	in	RS449/RS530		6	11	
62	Data Mode (DM-DSR) B	Differential	in	RS449/RS530		22	29	
65	Receiver Ready (RR-DCD) A	Differential	in	RS449/RS530		8	13	
66	Receiver Ready (RR-DCD) B	Differential	in	RS449/RS530		10	31	
4**	Send Common	Gnd		RS530		7	37	
33	Data Carrier Detect (DCD)	Single Ended	in	V.35	F			
18	Terminal Ready (TR-DTR) A	Differential	out	RS449/RS530		20	12	
17	Terminal Ready (TR-DTR) B	Differential	out	RS449/RS530		23	30	
3	V.35 Cable Connected		ground to indicate a V.35 cable is attached					7,18,19*
1	RS449 Cable Connected		ground to indicate a RS449 cable is attached					7,18,19^#
22	Distant Station Connected (DSC)	Single Ended	in	RS366				13
30	Clear To Send (CTS)	Single Ended	in	V.35	D			
31	Ring Indicate (RI) (Incoming Call	Single Ended	in	V.35/RS449	J		15	
	reserved (Ascend select line)							
68	LOS A	Differential	out	RS530 crypto		18	3	
67	LOS B	Differential	out	RS530 crypto		21	21	

* For V.35, connect pin 3 of 68 pin connector to ground
^For RS449, connect pin 1 of 68 pin connector to ground
#For RS530, connect pins 1 and 3 of 68 pin connector to ground
** Gnd pins are 2,4, 35-60

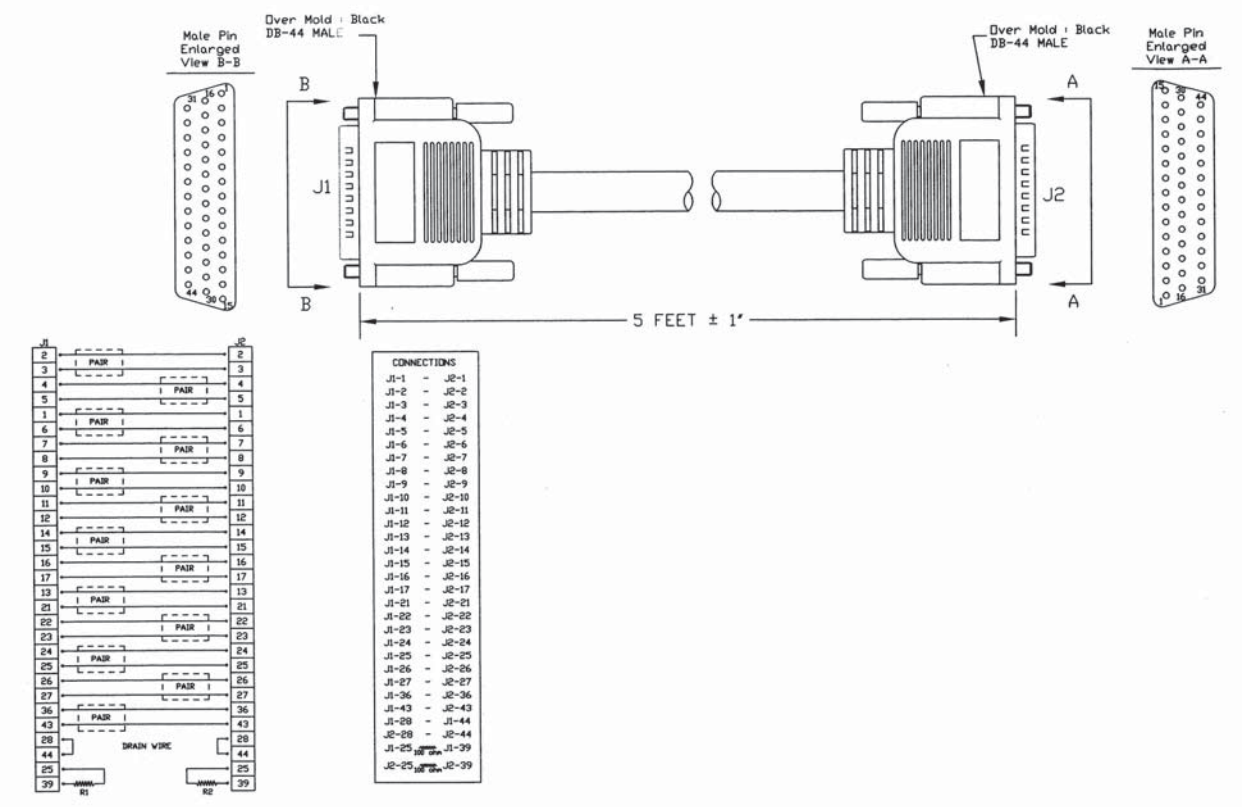
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V.35 NIC Cable



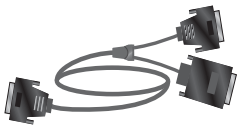
This cable connects a Polycom HDX system to Ascend network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page 2-4 to connect to network equipment that has the HD-44 pin interface. It has HD-44 M connectors on both ends and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-10608-001	—



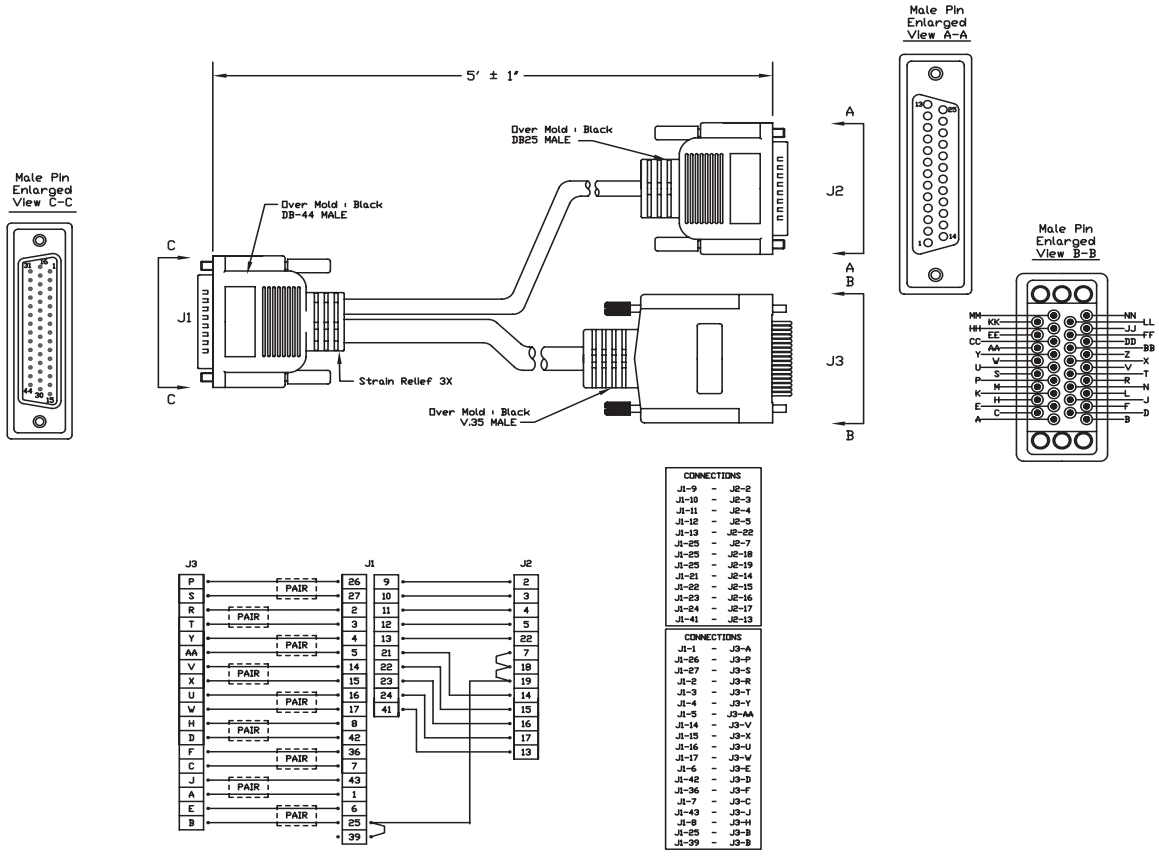
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V.35 and RS-366 Serial Cable



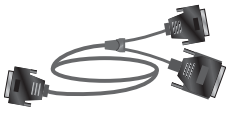
This cable connects a Polycom HDX system to third-party network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page 2-4 to connect to network equipment that has a V.35/RS-366 interface. It is HD-44 M to "Y" Winchester 34M/RS-366 DB-25M and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-10609-001	—



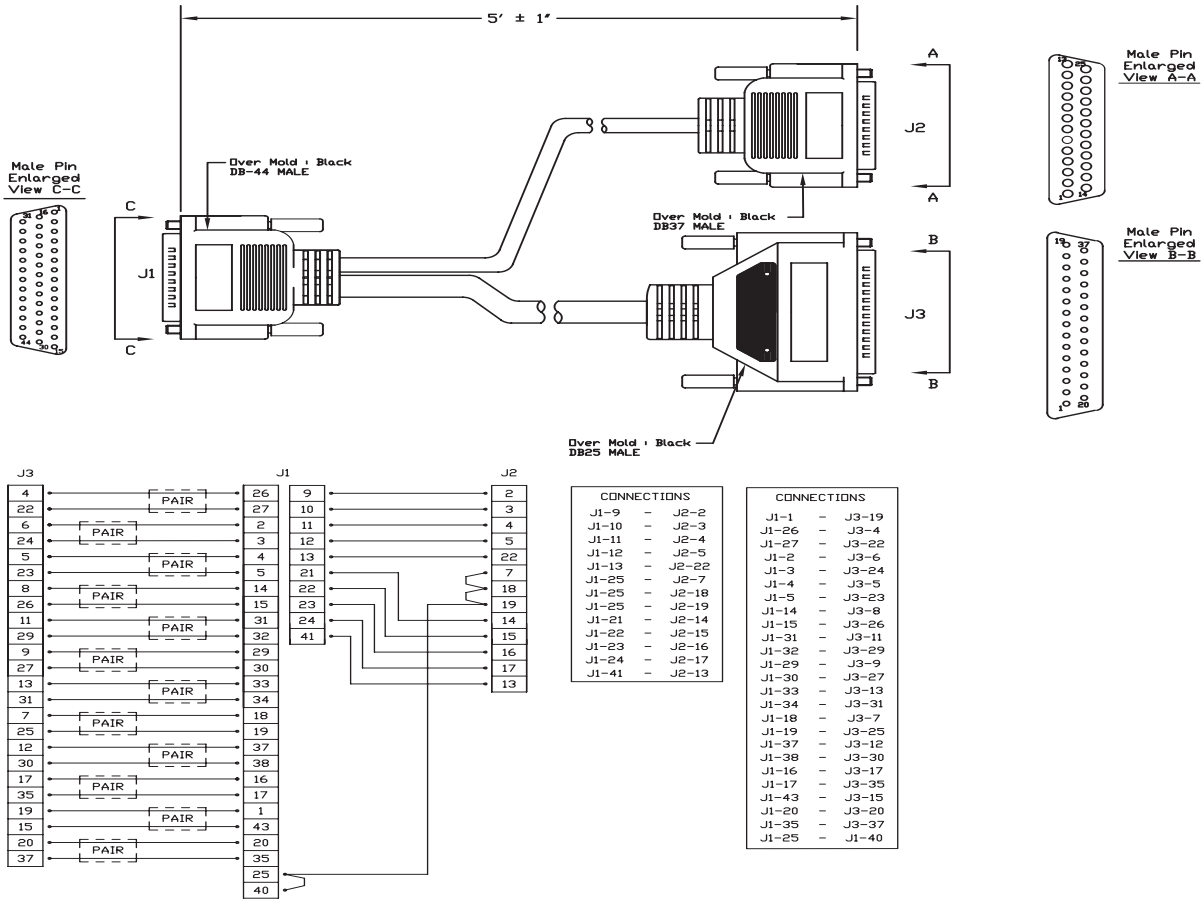
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RS-449 and RS-366 Serial Cable



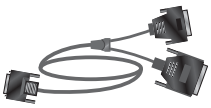
This cable connects a Polycom HDX system to third-party network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page 2-4 to connect to network equipment that has an RS-449/RS-366 interface. It is HD-44 M to "Y" RS-449 DB-37M/RS-366 DB-25M and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-10610-001	—



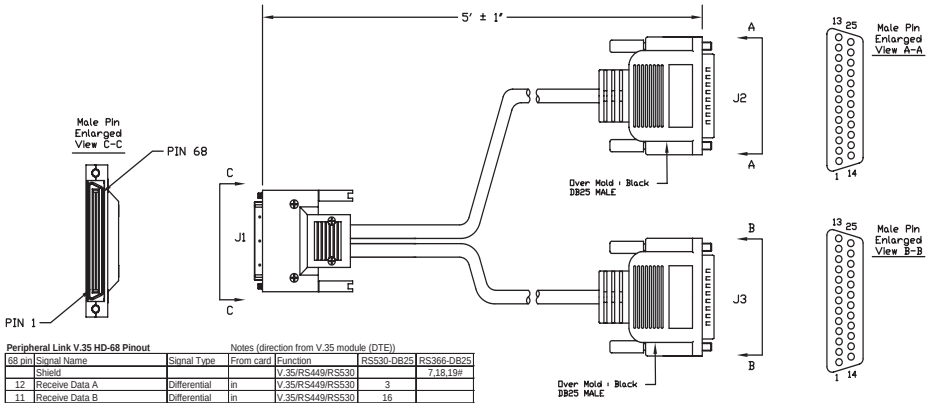
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RS-530 with RS-366 Serial Cable



This cable connects a Polycom HDX system to third-party network equipment. It is used with the V.35/RS-449/RS-530 serial adapter on page 2-4 to connect to network equipment that has an RS-530/RS-366 interface. It is HD-68M to "Y" DB-25M and is used with Polycom HDX systems that have a serial network interface card (NIC) installed.

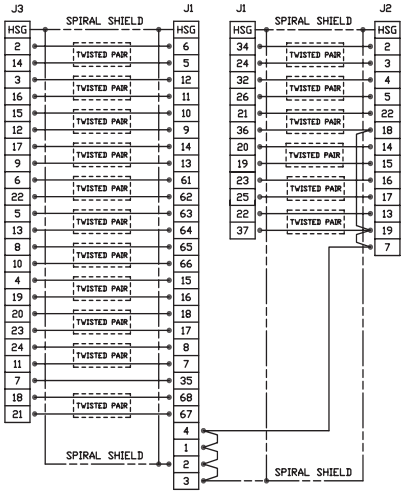
Length	Part Number	RoHS Compliant
5 ft (1.65 m)	2457-21263-001	Yes



Peripheral Link V.35 HD-68 Pinout Notes (direction from V.35 module (DTE))

68 pin	Signal Name	Signal Type	From card	Function	RS530-DB25	RS366-DB25
	Shield			V.35/RS449/RS530		7,18,19#
12	Receive Data A	Differential	in	V.35/RS449/RS530	3	
11	Receive Data B	Differential	in	V.35/RS449/RS530	16	
10	Send Timing A	Differential	in	V.35/RS449/RS530	15	
9	Send Timing B	Differential	in	V.35/RS449/RS530	12	
29	Data Set Ready (DSR)	Single Ended	in	V.35		
28	Request To Send (RTS)	Single Ended	out	V.35		
27	Data Terminal Ready (DTR)	Single Ended	out	V.35		
34	Digit Present (DPR)	Single Ended	out	RS366		2
24	Abandon Call/Retry (ACR)	Single Ended	in	RS366		3
32	Call Request (CRQ)	Single Ended	out	RS366		4
26	Present Next Digit (PND)	Single Ended	in	RS366		5
21	Data Line Occupied (DLO)	Single Ended	in	RS366		22
14	Receive Timing A	Differential	in	V.35/RS449/RS530	17	
13	Receive Timing B	Differential	in	V.35/RS449/RS530	9	
8	Terminal Timing A	Differential	out	V.35/RS449/RS530	24	
7	Terminal Timing B	Differential	out	V.35/RS449/RS530	11	
15	Request To Send (RTS) A	Differential	out	RS449/RS530	4	
16	Request To Send (RTS) B	Differential	out	RS449/RS530	19	
35**	Receive Common	Gnd		RS449		
20	BCD Dial Digit Bit 1 (NB1)	Single Ended	out	RS366		14
19	BCD Dial Digit Bit 2 (NB2)	Single Ended	out	RS366		15
23	BCD Dial Digit Bit 4 (NB4)	Single Ended	out	RS366		16
25	BCD Dial Digit Bit 8 (NB8)	Single Ended	out	RS366		17
2**	Signal Ground	Gnd		V.35/RS366		7,18,19
6	Send Data A	Differential	out	V.35/RS449/RS530	2	
5	Send Data B	Differential	out	V.35/RS449/RS530	14	
	reserved (Ascend select line)					
63	Clear To Send (CTS) A	Differential	in	RS449/RS530	5	
64	Clear To Send (CTS) B	Differential	in	RS449/RS530	13	
61	Data Mode (DM-DSR) A	Differential	in	RS449/RS530	6	
62	Data Mode (DM-DSR) B	Differential	in	RS449/RS530	22	
65	Receiver Ready (RR-DCD) A	Differential	in	RS449/RS530	8	
66	Receiver Ready (RR-DCD) B	Differential	in	RS449/RS530	10	
4**	Send Common	Gnd		RS530	7	
33	Data Carrier Detect (DCD)	Single Ended	in	V.35		
18	Terminal Ready (TR-DTR) A	Differential	out	RS449/RS530	20	
17	Terminal Ready (TR-DTR) B	Differential	out	RS449/RS530	23	
3	V.35 Cable Connected		ground to indicate a V.35 cable is attached			7,18,19*
1	RS449 Cable Connected		ground to indicate a RS449 cable is attached			7,18,19*#
22	Distant Station Connected (DSC)	Single Ended	in	RS366		13
30	Clear To Send (CTS)	Single Ended	in	V.35		
31	Ring Indicate (RI) (Incoming Call)	Single Ended	in	V.35/RS449		
	reserved (Ascend select line)					
68	LOS A	Differential	out	RS530 crypto	18	
67	LOS B	Differential	out	RS530 crypto	21	

* For V.35, connect pin 3 of 68 pin connector to ground
*For RS449, connect pin 1 of 68 pin connector to ground
#For RS530, connect pins 1 and 3 of 68 pin connector to ground
** Gnd pins are 2,4, 35-60



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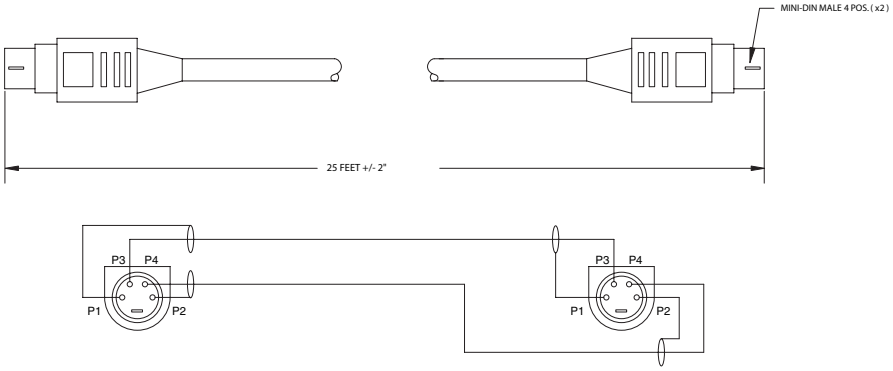
Video and Camera Cables

S-Video Cable



These cables connect a Polycom HDX system to a monitor or camera. They have yellow 4-pin mini-DIN connectors on both ends and are used with all Polycom HDX systems. The maximum approved length for this cable is 200 ft (60 m).

Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-08409-002	Yes
8 ft (2.4 m)	2457-08410-002	Yes
50 ft (15 m)	2457-09204-200	Yes



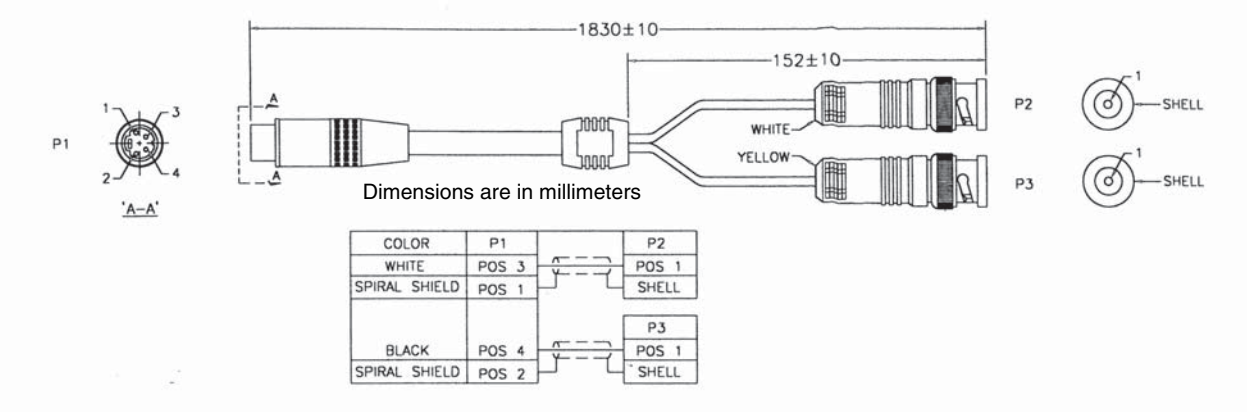
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BNC to S-Video Cable



This cable connects S-Video devices to a Polycom HDX system. It is 4-pin male mini-DIN to dual BNC. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
6 ft (1.8 m)	2457-21489-200	Yes



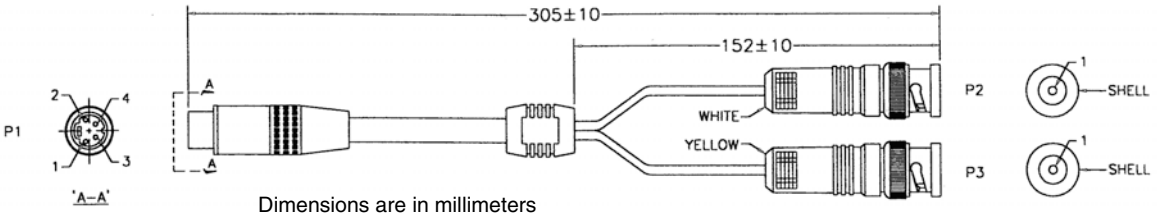
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BNC to S-Video Adapter



This adapter may be required when connecting standard S-Video cables to a Polycom HDX system. It is dual BNC to 4-pin female mini-DIN.

Length	Part Number	RoHS Compliant
1 ft (.3 m)	2457-21490-200	Yes



Dimensions are in millimeters

COLOR	P1		P2
WHITE	POS 3		POS 1
SPIRAL SHIELD	POS 1		SHELL
			P3
BLACK	POS 4		POS 1
SPIRAL SHIELD	POS 2		SHELL

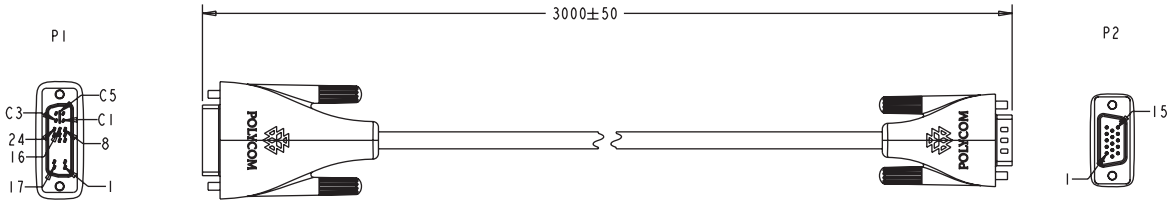
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DVI to VGA Monitor Cable



This cable connects a Polycom HDX system DVI-I output to a VGA monitor. It can also be used to connect a computer to one of the DVI-I video inputs on a Polycom HDX system. It is male DVI-A to male HD-15.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-23792-001	Yes



WIRING LIST				
SIGNAL	P1	P2	CABLE UNIT	CONDUCTOR
RED	C1	1	D1	CENTER
GREEN	C2	2	D2	CENTER
BLUE	C3	3	D3	CENTER
H-SYNC	C4	13	E1	-
GROUND-RED	C5	6	D1	SHIELD
GROUND-GREEN		7	D2	SHIELD
GROUND-BLUE		8	D3	SHIELD
DDC-SCL	6	15	E2	-
DDC-SDA	7	12	E3	-
V-SYNC	8	14	E4	-
+5V DC	14	9	E5	-
	16			
GROUND	15	5	E6	-
		10		
SHIELD	SHELL	SHELL	C,D	-

SCALE 1.000

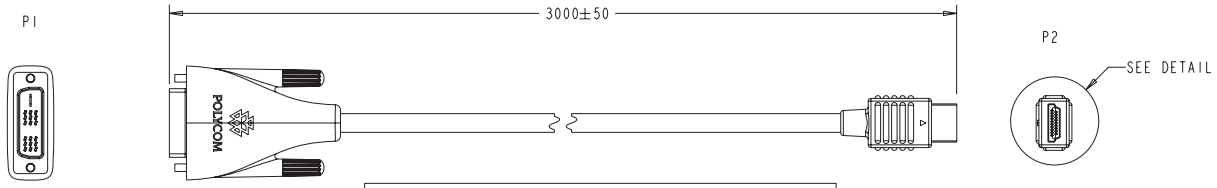
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HDMI Monitor Cable

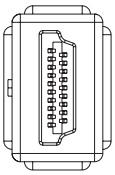


This cable connects the Polycom HDX system DVI-I output to an HDMI monitor. It is male DVI-D to male HDMI.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-23905-001	Yes

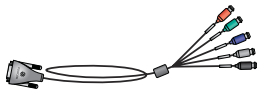


WIRING LIST				
SIGNAL	P1	P2	CABLE UNIT	CONDUCTOR
TMDS Data2-	1	3	D1	TIP
TMDS Data2+	2	1		RING
TMDS Data2 SHIELD	3	2		DRAIN
DDC Clock	6	15	E1	—
DDC Data	7	16	E2	—
TMDS Data1-	9	6	D2	TIP
TMDS Data1+	10	4		RING
TMDS Data1 Shield	11	5		DRAIN
+5 Volts	14	18	E3	—
+5 Volts Ground	15	17	E4	—
Hot Plug Detect	16	19	E5	—
TMDS Data0-	17	9	D3	TIP
TMDS Data0+	18	7		RING
TMDS Data0 Shield	19	8		DRAIN
TMDS Clock Shield	22	11	D4	DRAIN
TMDS Clock+	23	10		RING
TMDS Clock-	24	12		TIP
Shield	SHELL	SHELL	B,C	—



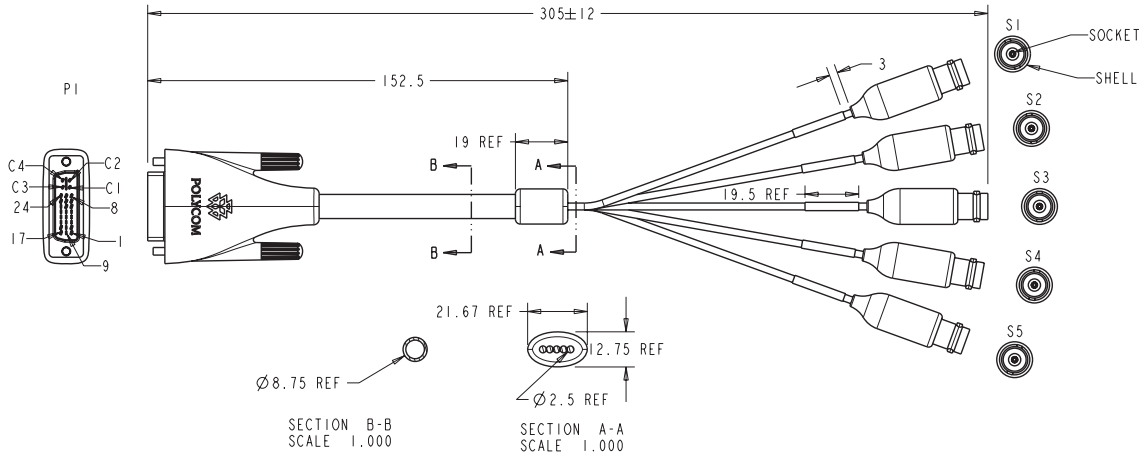
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BNC Monitor Adapter Cable



This cable connects the Polycom HDX system DVI-I output to a variety of analog display devices with composite, S-Video, component YPbPr, or RGBHV inputs. It is male DVI-A to five female BNC connectors.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23533-001	Yes



WIRING LIST							
SIGNAL	P1	WIRE	S1	S2	S3	S4	S5
VSync	8	COAX #1 CENTER	—	—	—	—	SOCKET
R/C/Pr	C1	COAX #2 CENTER	SOCKET	—	—	—	—
G/Y/Y/Comp.	C2	COAX #3 CENTER	—	SOCKET	—	—	—
B/-/Pb	C3	COAX #4 CENTER	—	—	SOCKET	—	—
HSync	C4	COAX #5 CENTER	—	—	—	SOCKET	—
GROUND	C5	COAX #1 SHIELD	SHELL	—	—	—	—
		COAX #2 SHIELD	—	SHELL	—	—	—
		COAX #3 SHIELD	—	—	SHELL	—	—
		COAX #4 SHIELD	—	—	—	SHELL	—
		COAX #5 SHIELD	—	—	—	—	SHELL

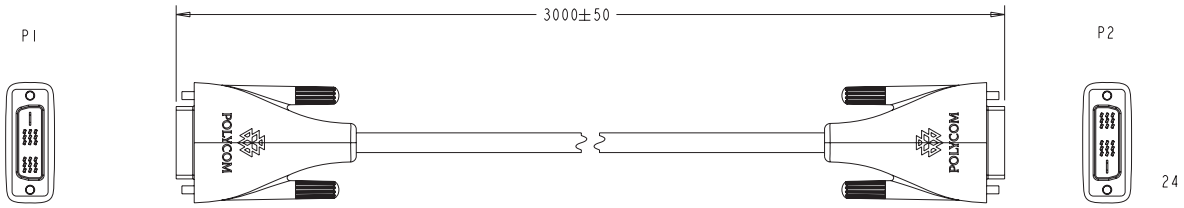
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DVI-D Monitor Cable



This cable connects a Polycom HDX system DVI-I output to a DVI-D monitor. It is male DVI-D on both ends.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-23793-001	Yes



WIRING LIST				
SIGNAL	P1	P2	CABLE UNIT	CONDUCTOR
TMDS Data2-	1	1	D1	TIP
TMDS Data2+	2	2		RING
TMDS Data2 SHIELD	3	3		DRAIN
DDC Clock	6	6	E1	—
DDC Data	7	7	E2	—
TMDS Data1-	9	9	D2	TIP
TMDS Data1+	10	10		RING
TMDS Data1 Shield	11	11		DRAIN
+5 Volts	14	14	E3	—
+5 Volts Ground	15	15	E4	—
Hot Plug Detect	16	16	E5	—
TMDS Data0-	17	17	D3	TIP
TMDS Data0+	18	18		RING
TMDS Data0 Shield	19	19		DRAIN
TMDS Clock Shield	22	22	D4	DRAIN
TMDS Clock+	23	23		RING
TMDS Clock-	24	24		TIP
Shield	SHELL	SHELL	B,C	—

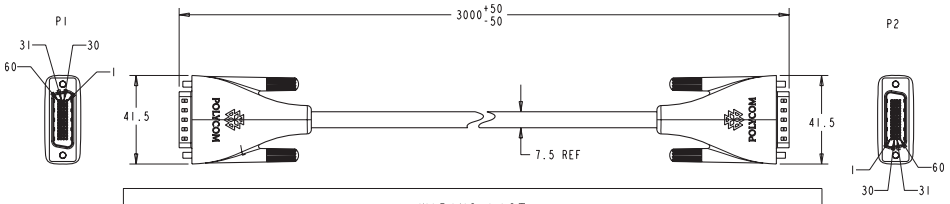
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HDCI Analog Camera Cable



This cable connects a Polycom HDX system to a Polycom Eagle Eye camera. It has male HDCI connectors on both ends.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	2457-23180-003	Yes
33 ft (10 m)	2457-23180-010	Yes



WIRING LIST					
SIGNAL NAME	P1 PIN#	P2 PIN#	CABLE UNIT	CONDUCTOR	COLOR
Y	47	47	D1	CENTER	
Y SHIELD	46	46		SHIELD	
Pb	13	13	D2	CENTER	
Pb SHIELD	12	12		SHIELD	
Pr	14	14	D3	CENTER	
Pr SHIELD	15	15		SHIELD	
+12 VDC	4	4	E1	-	
+12 VDC	5	5	E2	-	
+12 VDC	10	10	E3	-	
+12 VDC	11	11	E4	-	
GND	7	7	E5	-	
GND	8	8	E6	-	
GND	48	48	E7	-	
GND	58	58	E8	-	
Rx	1	1	E9	-	
Tx	2	2	E10	-	
IR	3	3	E11	-	
GND	SHELL	SHELL	B	-	

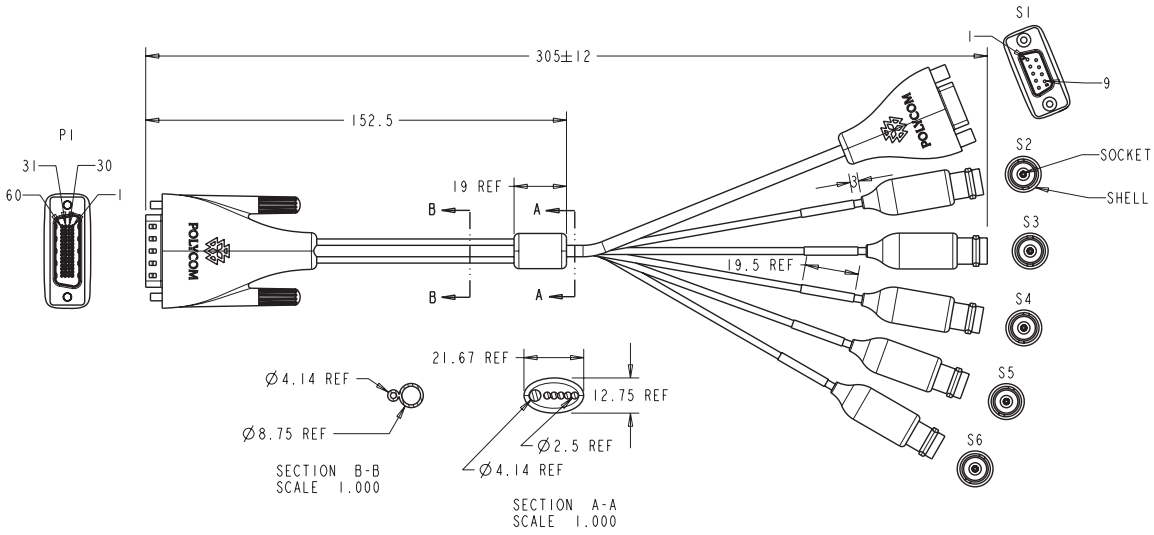
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HDCI Camera Break-Out Cable



This cable breaks out the HDCI camera cable video and control signals to standard interfaces. The five BNC connectors can be used to carry composite video, S-Video, or analog component YPbPr video. The DB-9 connector is used to connect to PTZ camera control interfaces. It is male HDCI to five female BNC and one female DB-9.

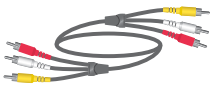
Length	Part Number	RoHS Compliant
1ft (0.3 m)	2457-23521-001	Yes



WIRING LIST								
SIGNAL	WIRE	P1	S1	S2	S3	S4	S5	S6
RS-232 Rx	28 AWG #1	1	2	—	—	—	—	—
RS-232 Tx	28 AWG #2	2	3	—	—	—	—	—
IR	28 AWG #3	3	9	—	—	—	—	—
GROUND	28 AWG #4	7	5	—	—	—	—	—
Pb/B SHIELD	COAX #1 SHIELD	12	—	—	—	SHELL	—	—
Pb/B	COAX #1 CENTER	13	—	—	—	SOCKET	—	—
Pr/R/C SHIELD	COAX #2 CENTER	14	—	SOCKET	—	—	—	—
Pr/R/C	COAX #2 SHIELD	15	—	SHELL	—	—	—	—
Y/G/C SHIELD	COAX #3 SHIELD	46	—	—	SHELL	—	—	—
Y/G/C	COAX #3 CENTER	47	—	—	SOCKET	—	—	—
HSync	COAX #4 CENTER	50	—	—	—	—	SOCKET	—
VSync	COAX #5 CENTER	51	—	—	—	—	—	SOCKET
HSync SHIELD	COAX #4 SHIELD	52	—	—	—	—	SHELL	—
VSync SHIELD	COAX #5 SHIELD		—	—	—	—	—	SHELL
—	BRAIDED SHIELD	SHIELD	SHIELD	—	—	—	—	—

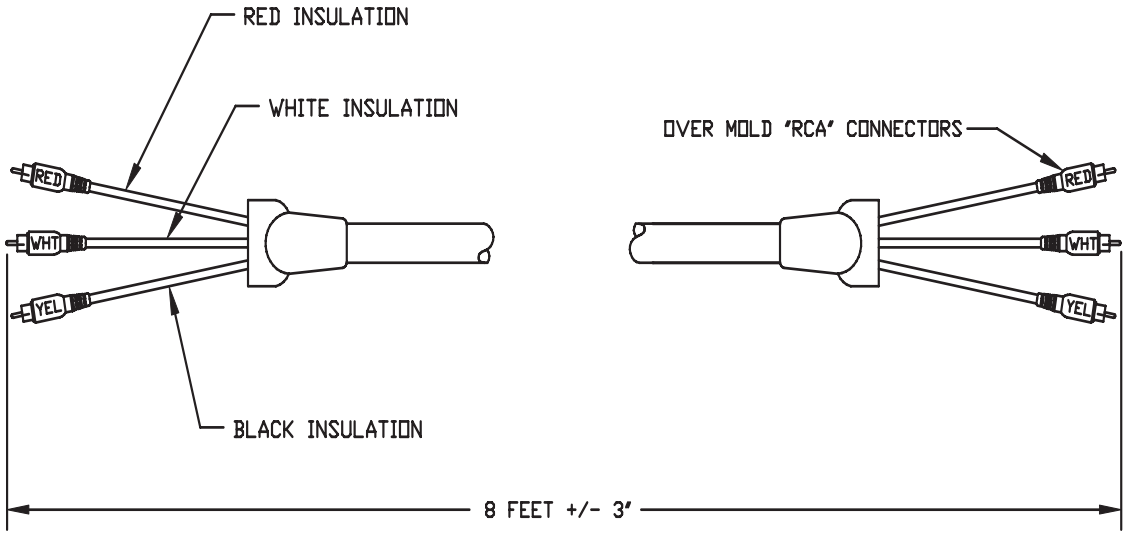
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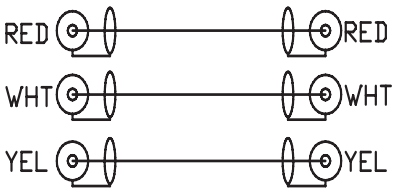
VCR/DVD Composite Cable



This cable connects a Polycom HDX system to a VCR or DVD player. It has triple RCA connectors on both ends. The Polycom HDX system requires a female RCA to male BNC adapter for the yellow video RCA connector, and the Audio Adapter Cable on page 2-34. The maximum approved length for this cable is 50 ft (15 m).

Length	Part Number	RoHS Compliant
8 ft (2.6 m)	2457-08412-001	—





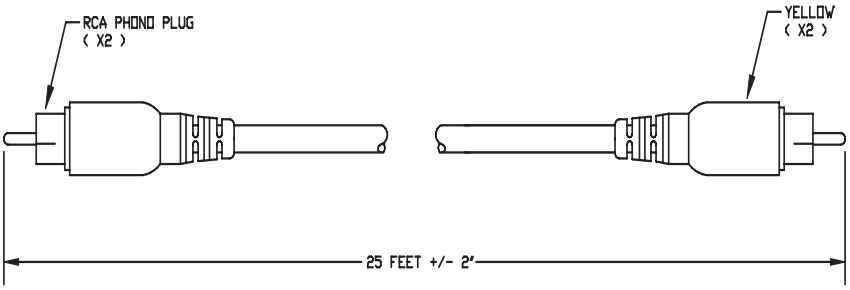
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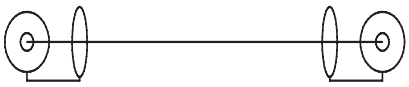
Composite Video Cable



This cable connects a Polycom HDX system to a monitor or camera. It has single yellow RCA connectors on both ends. The Polycom HDX system requires a female RCA to male BNC adapter in order to connect to composite input or output. The maximum approved length for this cable is 100 ft (30 m).

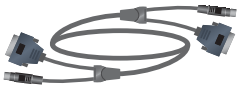
Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-09207-001	—





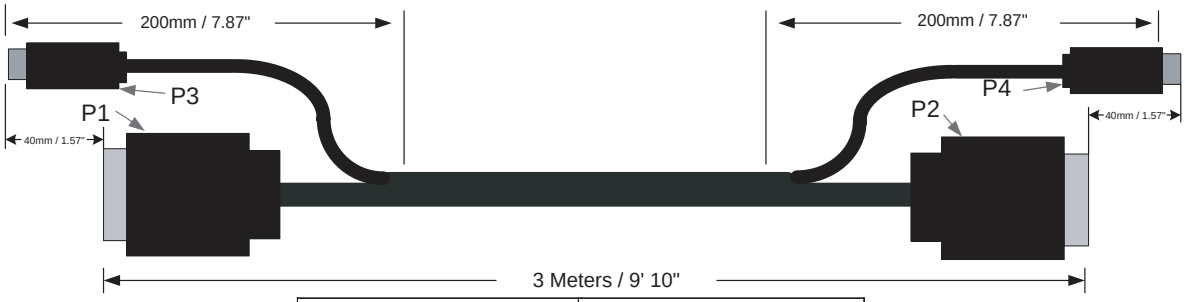
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PowerCam Plus Primary Cable

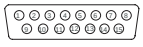


This cable connects a Polycom HDX system to a Polycom PowerCam Plus camera using the HDCI PowerCam Plus adapter cable on 2-21. It has 4-pin mini-DIN and DB-15 connectors on both ends.

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	1457-50105-002	Yes
30 ft (9 m)	1457-50105-230	Yes
50 ft (15 m)	1457-50105-250	Yes
100 ft (30 m)	1457-50105-300	Yes

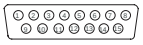


P1 Connector		P2 Connector	
Pin #	Signal Name	Pin #	Signal Name
1	Arm Mic	1	Arm Mic
2	Left Mic	2	Left Mic
3	A GND	3	A GND
4	Cam ID Bit	4	Cam ID Bit
5	P GND	5	P GND
6	+12V	6	+12V
7	SW-RX/SN-TX	7	SW-RX/SN-TX
8	IR signal	8	IR signal
9	Center Mic	9	Center Mic
10	Right Mic	10	Right Mic
11	A GND	11	A GND
12	P GND	12	P GND
13	+12V	13	+12V
14	SW-TX/SN-RX	14	SW-TX/SN-RX
15	IR return	15	IR return
P3 4 Pin mini Din		**P4 4 Pin mini Din**	
1	A GND	1	A GND
2	A GND	2	A GND
3	Luma	3	Luma
4	Chroma	4	Chroma



Front View of Connector





Front View of Connector



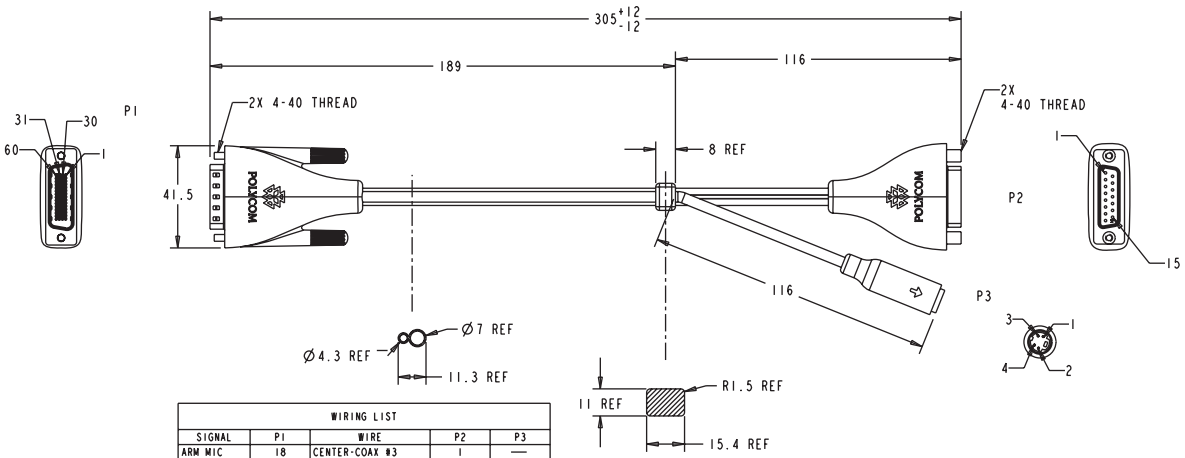
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HDCI PowerCam Plus Adapter Cable



This cable adapts a PowerCam Plus cable to HDCI. It is HDCI to 4-pin mini-DIN and DB-15. It can also be used with the PowerCam Primary cable (1457-50338-001) on page 2-24 to connect PowerCam.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23481-001	Yes



WIRING LIST

SIGNAL	P1	WIRE	P2	P3
ARM MIC	18	CENTER-COAX #3	1	—
LEFT MIC	16	CENTER-COAX #4	2	—
A GND	43	SHIELD-COAX #3	3	—
	45	SHIELD-COAX #4		
P GND	7	28 AWG #1	5	—
	8	28 AWG #2		
+12V	4	28 AWG #3	6	—
	5	28 AWG #4		
Rx (CODEC)	1	30 AWG #1	7	—
IR	3	30 AWG #2	8	—
CENTER MIC	19	CENTER-COAX #5	9	—
RIGHT MIC	17	CENTER-COAX #6	10	—
A GND	42	SHIELD-COAX #5	11	—
	44	SHIELD-COAX #6		
P GND	48	28 AWG #5	12	—
	58	28 AWG #6		
+12V	10	28 AWG #7	13	—
	11	28 AWG #8		
Tx (CODEC)	2	30 AWG #3	14	—
IR RTN	7	30 AWG #4	15	—
A GND	46	SHIELD-COAX #1	—	1
A GND	15	SHIELD-COAX #2	—	2
LUMA	47	CENTER-COAX #1	—	3
CHROMA	14	CENTER-COAX #2	—	4
SHIELD	SEE NOTE 2			

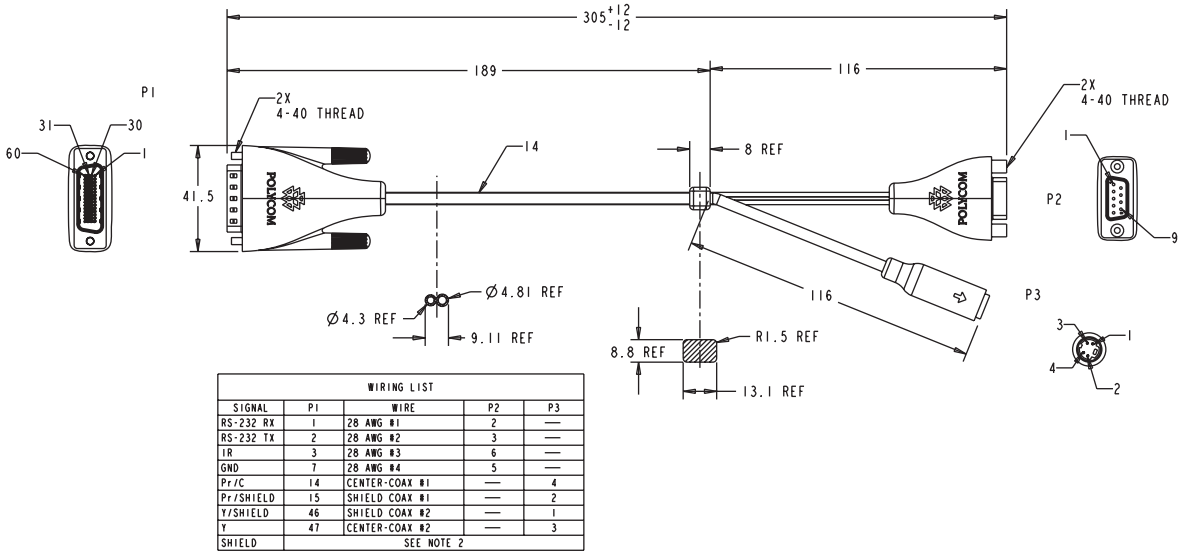
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HDCI VISCA Adapter Cable



This cable connects a Polycom HDX system HDCI video input to SD cameras with VISCA control. It is HDCI to 4-pin mini-DIN and DB-9. Standard S-Video and DB-9 serial cables are required to connect this cable to the camera.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23486-001	Yes



WIRING LIST				
SIGNAL	P1	WIRE	P2	P3
RS-232 RX	1	28 AWG #1	2	—
RS-232 TX	2	28 AWG #2	3	—
IR	3	28 AWG #3	6	—
GND	7	28 AWG #4	5	—
Pr/C	14	CENTER-COAX #1	—	4
Pr/SHIELD	15	SHIELD COAX #1	—	2
Y/SHIELD	46	SHIELD COAX #2	—	1
Y	47	CENTER-COAX #2	—	3
SHIELD	SEE NOTE 2			

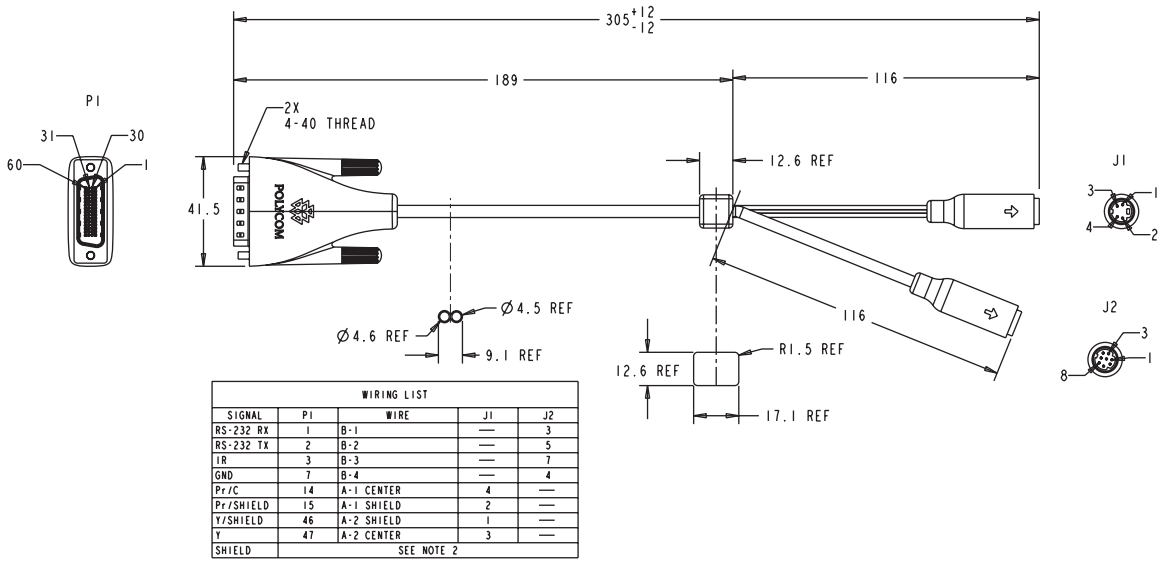
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HDCI Sony VISCA Adapter Cable



This cable connects a Polycom HDX system HDCI video input to a camera using Sony 8-pin mini DIN VISCA and S-Video. It is HDCI to 8-pin mini-DIN and S-Video. Standard S-Video and Sony VISCA cables are required to connect this cable to the camera.

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23549-001	Yes



WIRING LIST

SIGNAL	P1	WIRE	J1	J2
RS-232 RX	1	B-1	—	3
RS-232 TX	2	B-2	—	5
IR	3	B-3	—	7
GND	7	B-4	—	4
Pr/C	14	A-1 CENTER	4	—
Pr/SHIELD	15	A-1 SHIELD	2	—
Y/SHIELD	46	A-2 SHIELD	1	—
Y	47	A-2 CENTER	3	—
SHIELD	SEE NOTE 2			

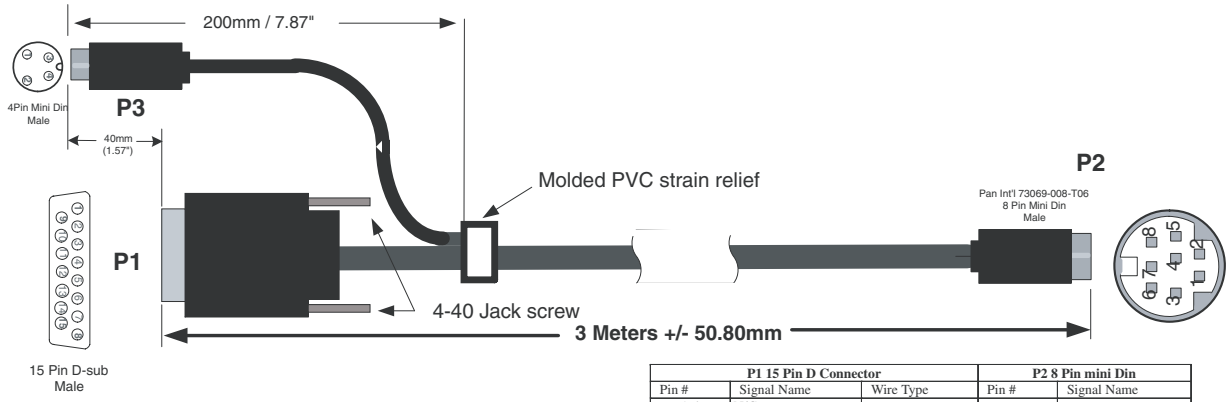
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PowerCam Primary Camera Cable



This cable connects the Polycom HDX system video input 1 to a Polycom PowerCam camera up to 10 ft away when used with the HDCI PowerCam Plus Adapter cable on page 2-21. It is 8-pin mini-DIN to 4-pin mini-DIN and DB-15. The maximum approved length for this cable is 10 ft (3 m).

Length	Part Number	RoHS Compliant
9 ft 10 in (3 m)	1457-50338-002	Yes



P1 15 Pin D Connector			P2 8 Pin mini Din	
Pin #	Signal Name	Wire Type	Pin #	Signal Name
1-4	N/C			
5	PGND	22AWG wire	3	DGND
6	+12V	22 AWG wire	7	+12V
7	SW-RX/SN-TX	30 AWG wire	2	SW-RX/SN-TX
8	IR-SIGNAL	30 AWG wire	4	IR_SIGNAL
9-11	N/C			
12	P GND	22 AWG wire	3	DGND
13	+12V	22 AWG wire	7	+12V
14	SW-TX/SN-RX	30 AWG wire	1	SW-TX/SN-RX
15	IR RETURN	30 AWG wire	3	DGND
SHIELD		DRAIN wire	SHIELD	
P3 4 Pin Mini Din				
1	RTN	Coax Shield	5	GVID
2	RTN	Coax Shield	5	GVID
3	Luma	Micro Coax	6	Luma
4	Chroma	Micro Coax	8	Chroma
SHIELD		DRAIN wire	SHIELD	

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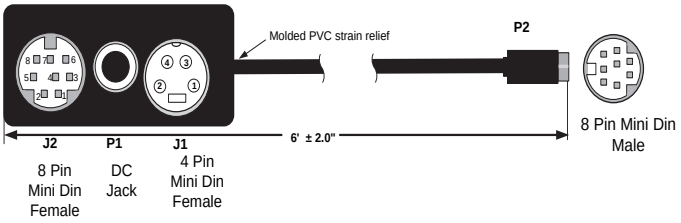
PowerCam Break-Out Cable



This cable connects S-Video and control cables and a power supply to a Polycom PowerCam camera. This combination is required when using the PowerCam as the primary camera more than 10 ft away from the system, or as the secondary camera. It is 8-pin mini-DIN to 3-way breakout block.

A separate power supply is required (part number 1465-52621-036).

Length	Part Number	RoHS Compliant
6 ft (1.8 m)	2457-50526-200	Yes



CONNECTION TABLE				
Signal Name	**P1**	**P2**	**J1**	**J2**
TXD	---	1	---	5
RXD	---	2	---	3
DGND	1	3	---	6 & 4
IR-SIGNAL	---	4	---	7
CHROMAR	---	5	1	---
LUMAR	---	5	2	---
LUMA (Y)	---	6	3	---
+12V	2	7	---	---
CHROMA (C)	---	8	4	---
SHIELD	---	Shield	---	Shield

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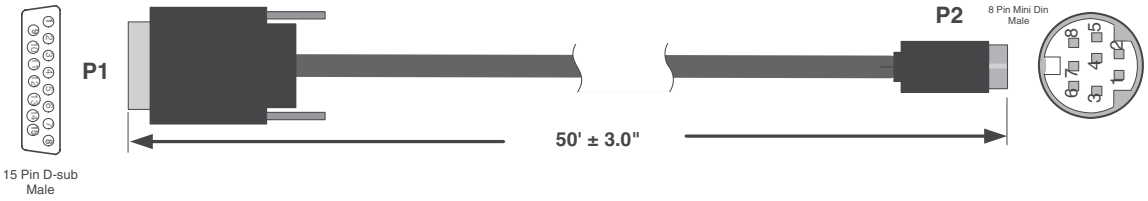
PowerCam Plus/VISCA Control Cable



8-pin mini-DIN to DB-15

This cable adapts the 8-pin mini-DIN VISCA control interface to the PowerCam Plus DB-15 control interface. It is used with the PowerCam Break-Out cable and the HDCI PowerCam Plus adapter cable. It is 8-pin mini-DIN to DB-15.

Length	Part Number	RoHS Compliant
50 ft (15 m)	1457-50527-201	Yes



P1 15 Pin D Connector			P2 VISCA 8 Pin mini Din		
Pin #	Signal Name		Pin #	Signal Name	
1-6, 9-11, 13	NC		1, 2, 8	NC	
7	SW-RX/SN-TX		3	SW-RX/SN-TX	
8	IR-SIGNAL		7	IR OUT	
12	P GND		4	GND	
14	SW-TX/SN-RX		5	SW-TX/SN-RX	
15	IR RETURN		6	GND	
SHIELD			SHIELD		

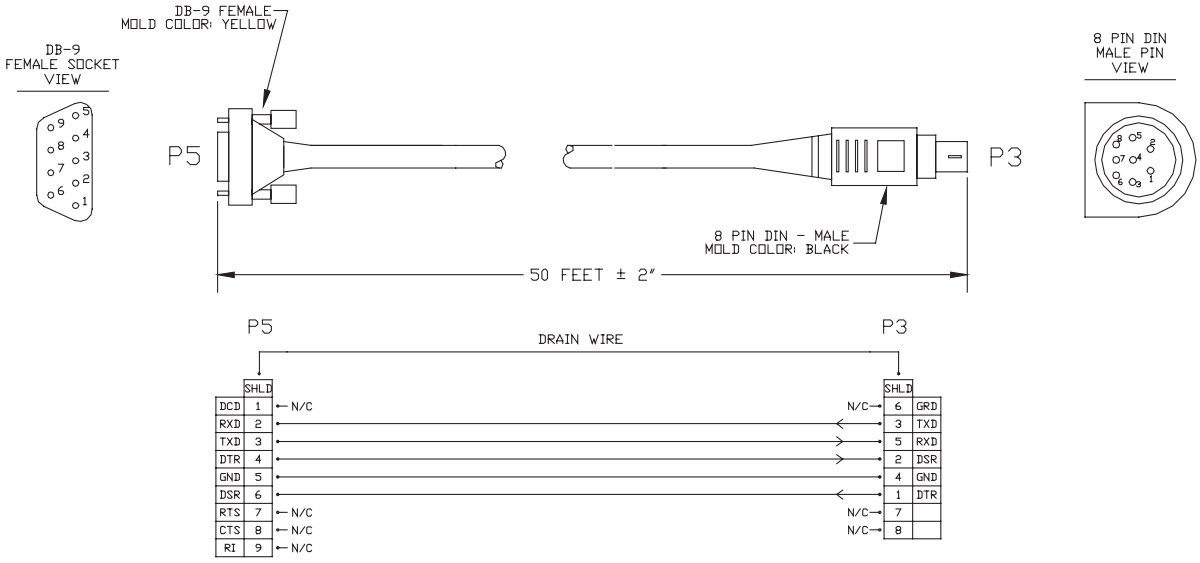
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8-pin mini-DIN to DB-9

This cable connects Polycom HDX system serial port inputs to a non-Polycom camera using a VISCA 8-pin DIN connector, or to a Polycom PowerCam break-out cable with a PowerCam camera. It is 8-pin mini-DIN to DB-9. RTS/CTS and IR are not supported on this cable.

Length	Part Number	RoHS Compliant
50 ft (15 m)	2457-10029-200	Yes
100 ft (30 m)	2457-21259-001	—



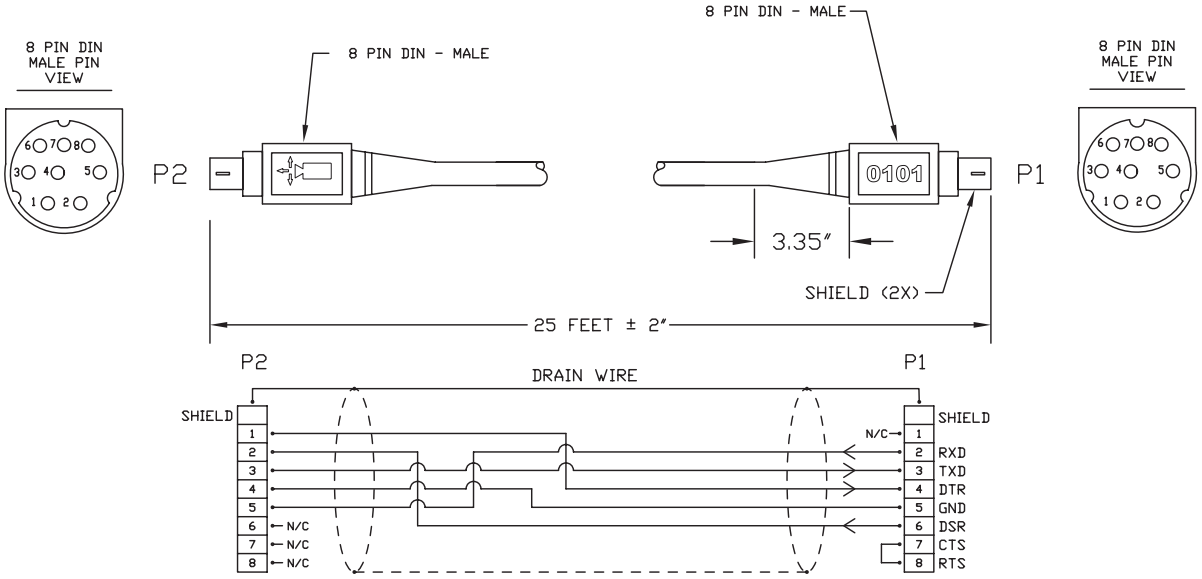
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PowerCam/VISCA Control Cable



This cable connects a Polycom HDX system to a camera VISCA port (via the HDCI Sony VISCA Adapter Cable on page 2-23), or to the PowerCam Break-Out Cable on page 2-25. It has 8-pin mini-DIN male connectors on both ends. An S-Video cable is also required. IR from the camera is not supported on this cable.

Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-21713-201	Yes
50 ft (15 m)	2457-21713-202	Yes



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Audio Cables

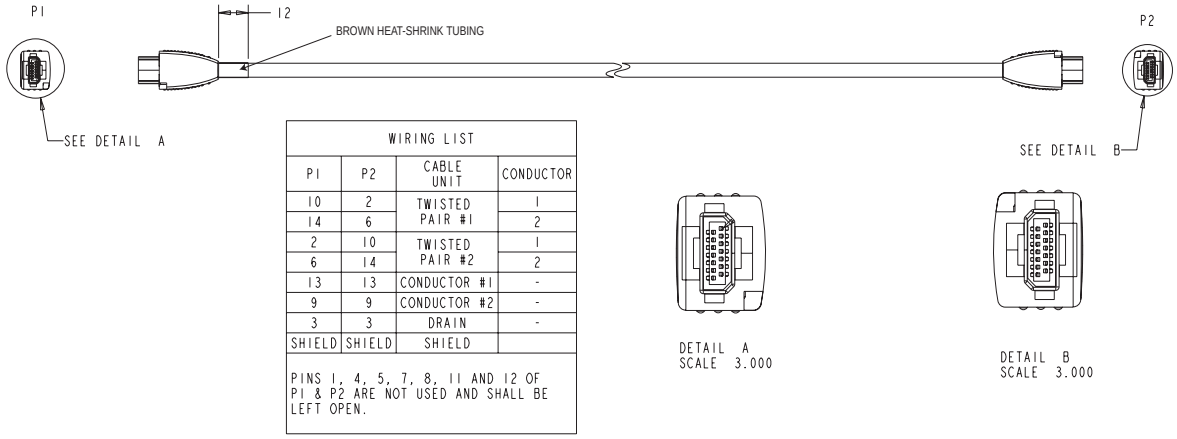
Polycom HDX Microphone Array Cable

For more information about supported microphone configurations, refer to the *Administrator's Guide for Polycom HDX Systems*.



This cable connects two Polycom HDX microphones. It has male Walta connectors on both ends.

Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-23216-001	Yes
15 ft (4.6 m)	2457-23215-001	Yes



WIRING LIST

P1	P2	CABLE UNIT	CONDUCTOR
10	2	TWISTED PAIR #1	1
14	6		2
2	10	TWISTED PAIR #2	1
6	14		2
13	13	CONDUCTOR #1	-
9	9	CONDUCTOR #2	-
3	3	DRAIN	-
SHIELD	SHIELD	SHIELD	

PINS 1, 4, 5, 7, 8, 11 AND 12 OF P1 & P2 ARE NOT USED AND SHALL BE LEFT OPEN.

Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

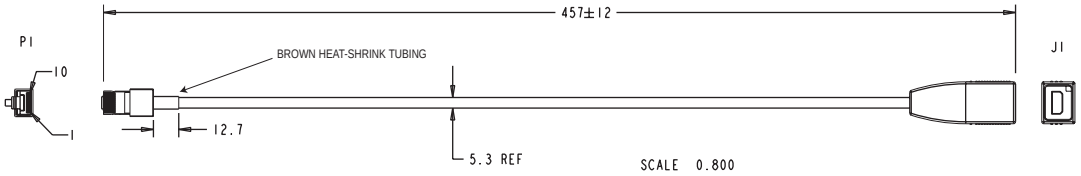
Polycom HDX Microphone Array Cable Adapter

For more information about supported microphone cable configurations, refer to the *Administrator's Guide for Polycom HDX Systems*.



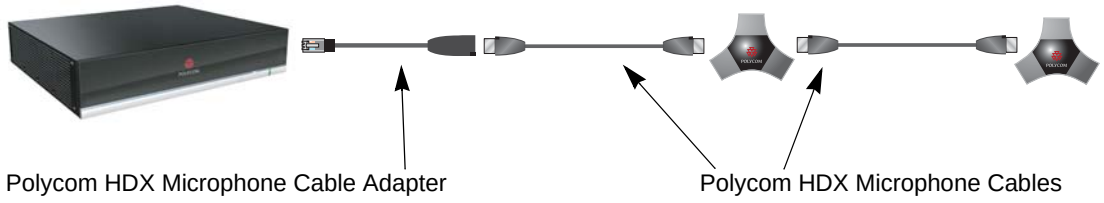
This cable adapts an Polycom HDX microphone array to a Polycom HDX system. It is male RJ-45 to female Walta.

Length	Part Number	RoHS Compliant
18 in (0.5 m)	2457-23716-001	Yes



WIRING LIST			
P1	J1	CABLE UNIT	CONDUCTOR
2	10	TWISTED PAIR #1	1
3	14		2
6	2	TWISTED PAIR #2	1
7	6		2
8	13	INSULATED CONDUCTOR #1	-
9	9	INSULATED CONDUCTOR #2	-
4	3	DRAIN	-
	SHIELD		
SHIELD	-	SHIELD	-
CONTACTS 1,5 AND 10 OF P1 AND CONTACTS 1,4,5,7,8,11 AND 12 OF J1 ARE NOT USED AND SHALL BE LEFT OPEN.			

The following diagram shows microphone connection options for Polycom HDX systems, using cables available from Polycom.



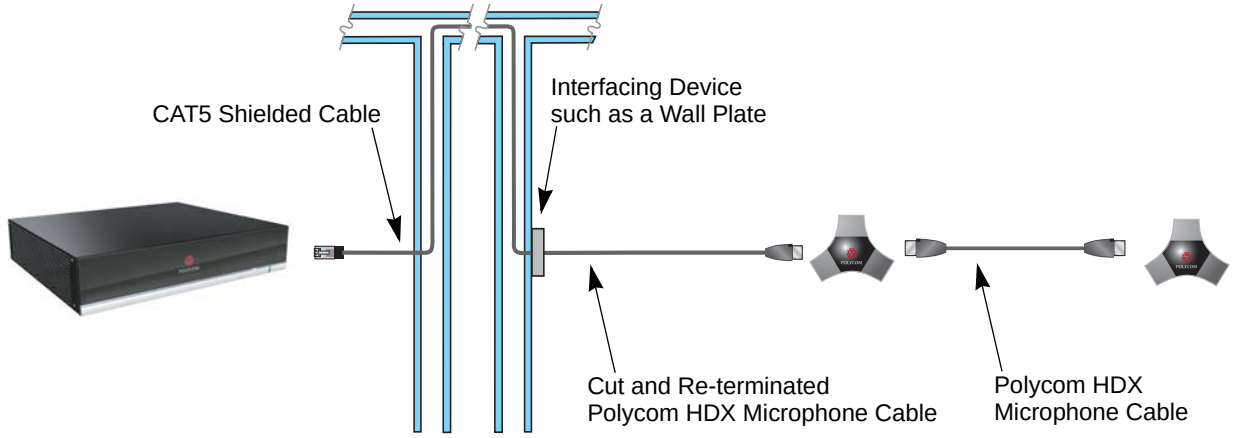
Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

Custom Cabling for Polycom HDX Microphones

You can create a custom-length cable from the Polycom HDX system to the Polycom HDX microphone. Start with the microphone cable (2457-23216-001), and cut off the P1 end. Using the wiring tables shown, create a custom cable from the microphone to a wall plate or other interfacing device. Next, from the wall plate or other interfacing device, run shielded CAT5 or better cable to the Polycom HDX system, terminating with a shielded RJ-45 plug connector.

The maximum total length from the Polycom HDX system to the first Polycom microphone is 100 ft. The maximum length between subsequent microphones is 25 ft.

The following diagram shows an example of longer custom cabling from a Polycom HDX system to a Polycom microphone.



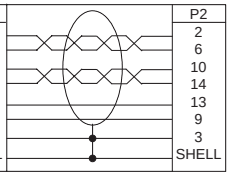
The following steps explain how to wire this custom cable configuration.

1. Identify the P1 connector on the Polycom HDX microphone cable according to the location of the brown heat-shrink tubing as shown on page 2-29. Remove the P1 connector and skip to step 4. If you cannot identify the P1 connector, remove either connector from the cable and continue with step 2.

   The following tables show the color coding for the cable wiring.

VENDOR 1

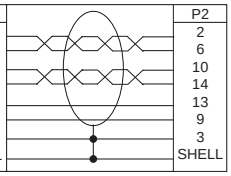
COLOR	AWG	P1	P2
RED	28	10	2
ORANGE	28	14	6
YELLOW	28	2	10
GREEN	28	6	14
WHITE	24	13	13
BLACK	24	9	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL



P1, P2 - Walta Electronics, M30-558-0051

VENDOR 2

COLOR	AWG	P1	P2
BLUE	28	10	2
YELLOW	28	14	6
ORANGE	28	2	10
GREEN	28	6	14
BLACK	24	13	13
WHITE	24	9	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

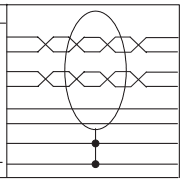


P1, P2 - Walta Electronics, M30-558-0051

2. If you are not sure which connector you cut off, use the following tables to perform a continuity check between the connector and the cable colors. If you cut off P1, skip to step 4. If you cut off P2, continue with step 3.

VENDOR 1, P1

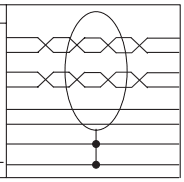
COLOR	AWG	P1
RED	28	10
ORANGE	28	14
YELLOW	28	2
GREEN	28	6
WHITE	24	13
BLACK	24	9
DRAIN WIRE		3
SHIELD		SHELL



P1 - Walta Electronics, M30-558-0051

VENDOR 2, P1

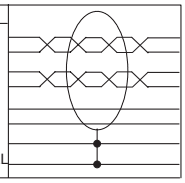
COLOR	AWG	P1
BLUE	28	10
YELLOW	28	14
ORANGE	28	2
GREEN	28	6
BLACK	24	13
WHITE	24	9
DRAIN WIRE		3
SHIELD		SHELL



P1 - Walta Electronics, M30-558-0051

VENDOR 1, P2

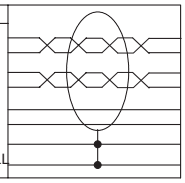
COLOR	AWG	P2
RED	28	2
ORANGE	28	6
YELLOW	28	10
GREEN	28	14
WHITE	24	13
BLACK	24	9
DRAIN WIRE		3
SHIELD		SHELL



P2 - Walta Electronics, M30-558-0051

VENDOR 2, P2

COLOR	AWG	P2
BLUE	28	2
YELLOW	28	6
ORANGE	28	10
GREEN	28	14
BLACK	24	13
WHITE	24	9
DRAIN WIRE		3
SHIELD		SHELL

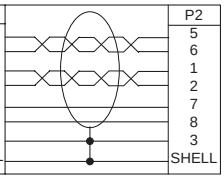


P2 - Walta Electronics, M30-558-0051

3. If you cut off P2, re-terminate the cable with a shielded RJ-45 connector using the following tables, then skip to step 5.

VENDOR 1, P1

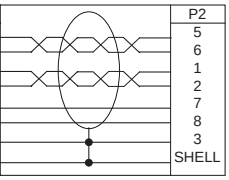
COLOR	AWG	P1	P2
RED	28	10	5
ORANGE	28	14	6
YELLOW	28	2	1
GREEN	28	6	2
WHITE	24	13	7
BLACK	24	9	8
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL



P1 - Walta Electronics, M30-558-0051
P2 - RJ-45 shielded plug, Tyco 5-569552 or equivalent

VENDOR 2, P1

COLOR	AWG	P1	P2
BLUE	28	10	5
YELLOW	28	14	6
ORANGE	28	2	1
GREEN	28	6	2
BLACK	24	13	7
WHITE	24	9	8
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL



P1 - Walta Electronics, M30-558-0051
P2 - RJ-45 shielded plug, Tyco 5-569552 or equivalent

4. If you cut off P1, re-terminate the cable with an RJ-45 8-pin plug using the following tables, then continue with step 5.

VENDOR 1

COLOR	AWG	P1	P2
RED	28	1	2
ORANGE	28	2	6
YELLOW	28	5	10
GREEN	28	6	14
WHITE	24	7	13
BLACK	24	8	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

P1- RJ-45 shielded plug, Tyco 5-569552 or equivalent
P2 - Walta Electronics, M30-558-0051

VENDOR 2

COLOR	AWG	P1	P2
BLUE	28	1	2
YELLOW	28	2	6
ORANGE	28	5	10
GREEN	28	6	14
BLACK	24	7	13
WHITE	24	8	9
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

P1- RJ-45 shielded plug, Tyco 5-569552 or equivalent
P2 - Walta Electronics, M30-558-0051

5. Create a custom pin-out cable using shielded CAT5 cable. The cable is terminated on one end to either a shielded CAT5 keystone jack or, if using a shielded panel coupler, a shielded RJ-45 plug connector. The other end terminates to a shielded RJ-45 plug that connects to the Polycom HDX system.

COLOR	AWG	P1	P2
WHITE/GREEN	24	1	1
GREEN	24	2	2
WHITE/ORANGE	24	5	5
ORANGE	24	6	6
WHITE/BROWN	24	7	7
BROWN	24	8	8
DRAIN WIRE		3	3
SHIELD		SHELL	SHELL

P1 - RJ-45 shielded Keystone jack, L-com RJ110C5-S or equivalent OR
P1 - RJ-45 shielded plug, Tyco 5-569552 or equivalent with shielded RJ-45 panel coupler kit (L-com ECF504-SC5E or equivalent)
P2- RJ-45 shielded plug, Tyco 5-569552 or equivalent



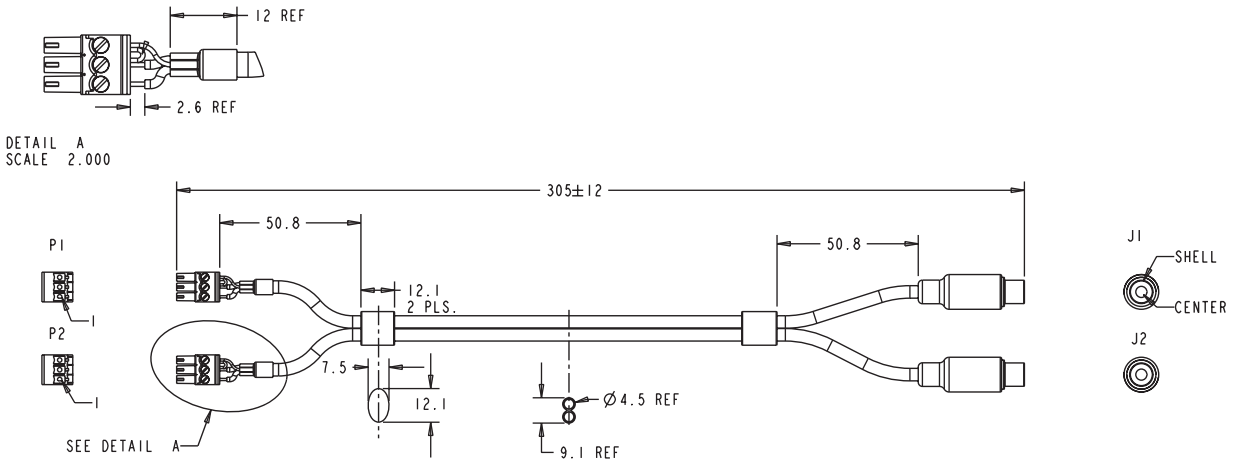
The Polycom RJ-45 connector pinout is custom. For best performance, follow the wiring tables shown in this document. If standard Ethernet cables are used, signal integrity cannot be guaranteed and degraded performance may occur, especially at longer lengths.

Audio Adapter Cable



This cable adapts the Polycom HDX system Phoenix audio connectors to standard RCA audio cables, such as the Audio Cable on page 2-35. It is dual male Phoenix to dual female RCA connectors (red/white).

Length	Part Number	RoHS Compliant
1 ft (0.3 m)	2457-23492-001	Yes



WIRING LIST				
PLUG	CONTACT	CONDUCTOR	CONTACT	JACK
P1	1	A+	CENTER	J1
	2	A-	SHELL	
	3	A DRAIN	—	
P2	1	B+	CENTER	J2
	2	B-	SHELL	
	3	B DRAIN	—	
INSTALL JUMPER BETWEEN CONTACT 2 AND CONTACT 3 OF BOTH P1 & P2 AS SHOWN IN DETAIL "A".				

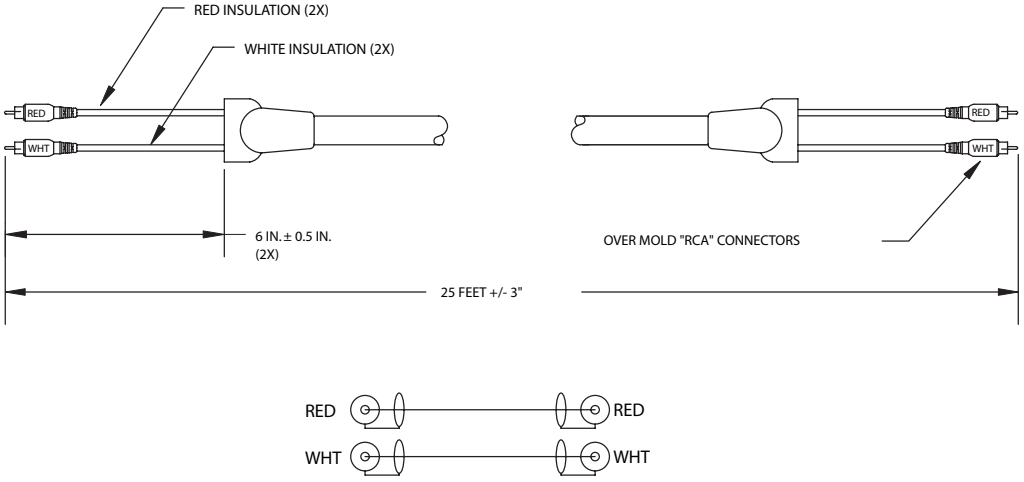
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Audio Cable



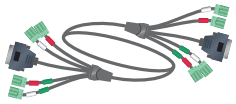
This cable connects a Polycom HDX system to an external audio system. It is used with the Audio Adapter cable on page 2-34. It has dual RCA connectors (red/white) on both ends. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-09212-002	Yes



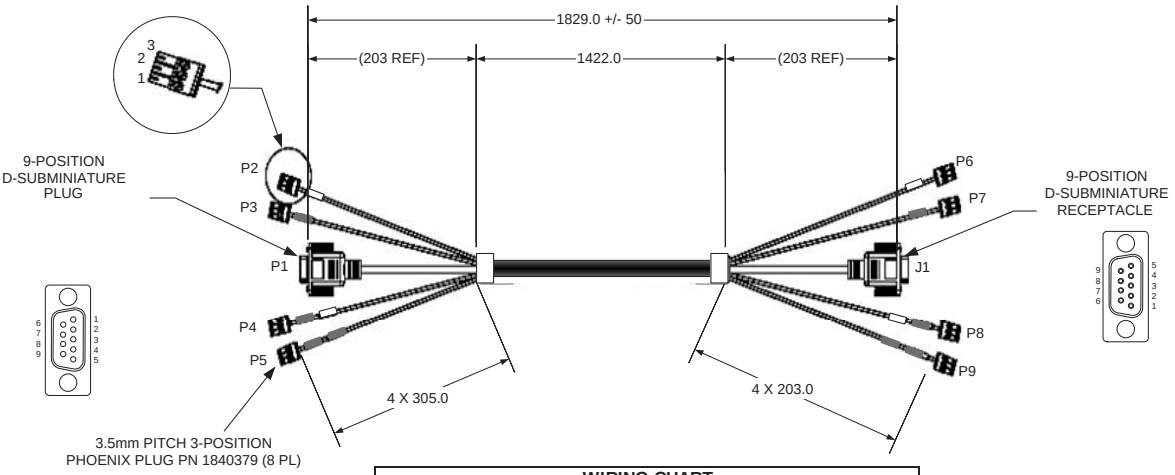
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Vortex Cable



This cable connects a Polycom HDX system to a Polycom Vortex mixer. It has 4 mini-Phoenix and DB-9 connectors on both ends.

Length	Part Number	RoHS Compliant
6 ft (1.8 m)	2457-21978-200	Yes

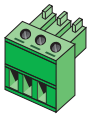


PIN #	
1	Signal +
2	Signal - (return)
3	Shield/darin wire/ground

WIRING CHART			
FROM	TO	WIRE TYPE	WIRE USE
P1-2	J1-2	A	SIGNAL
P1-3	J1-3		SIGNAL
P1-5	J1-5		SIGNAL
P1-7	J1-7		SIGNAL
P1-8	J1-8		SIGNAL
P1-SHELL	J1-SHELL		SHIELD
PINS 1, 4, 6, 9 ARE N/C			N/A
P2-1	P6-1	B	SIGNAL
P2-2	P6-2		SIGNAL
P2-3	P6-3		SHIELD (DRAIN WIRE)
P3-1	P7-1	B	SIGNAL
P3-2	P7-2		SIGNAL
P3-3	P7-3		SHIELD (DRAIN WIRE)
P4-1	P8-1	B	SIGNAL
P4-2	P8-2		SIGNAL
P4-3	P8-3		SHIELD (DRAIN WIRE)
P5-1	P9-1	B	SIGNAL
P5-2	P9-2		SIGNAL
P5-3	P9-3		SHIELD (DRAIN WIRE)

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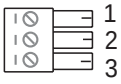
3.5mm Screw Cage Connector



This 3-pin connector connects audio input and output to the Polycom HDX system. It also connects the IR sensor input on a Polycom HDX system to an external IR receiver, such as Xantech models 780-80, 780-90, 480-00, and 490-90.

Length	Part Number	RoHS Compliant
—	1515-41597-001	Yes

Top View



Pinout for audio connector

PIN #	
1	Signal +
2	Signal - (return)
3	Shield/drain wire/ground

Pinout for IR connector

PIN #	
1	+12 V
2	Ground
3	IR signal

Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

The following table shows how to wire this connector for 2-wire connections, Phoenix to RCA.

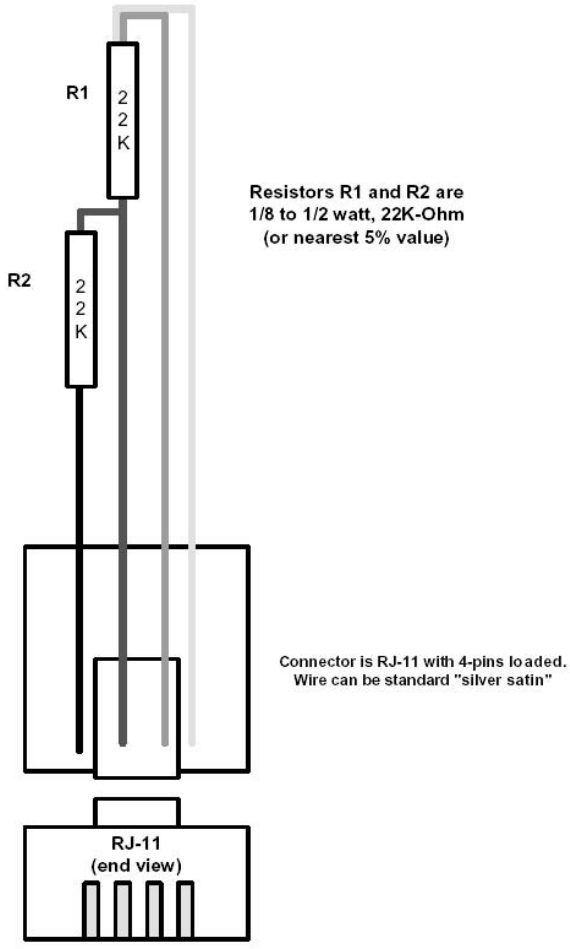
Phoenix Contact	RCA Contact
1	Center
2	Shell
3	—
Install jumper between contact 2 and contact 3 on the Phoenix connector.	

Subwoofer Volume Attenuator



This attenuator plugs into the Volume Control RJ-11 port on the subwoofer that comes with the Polycom stereo speaker kit. The attenuator is required for proper operation of the acoustic echo cancellation. It is an RJ-11 connector.

Length	Part Number	RoHS Compliant
3.5 in (9 cm)	1457-52415-001	—



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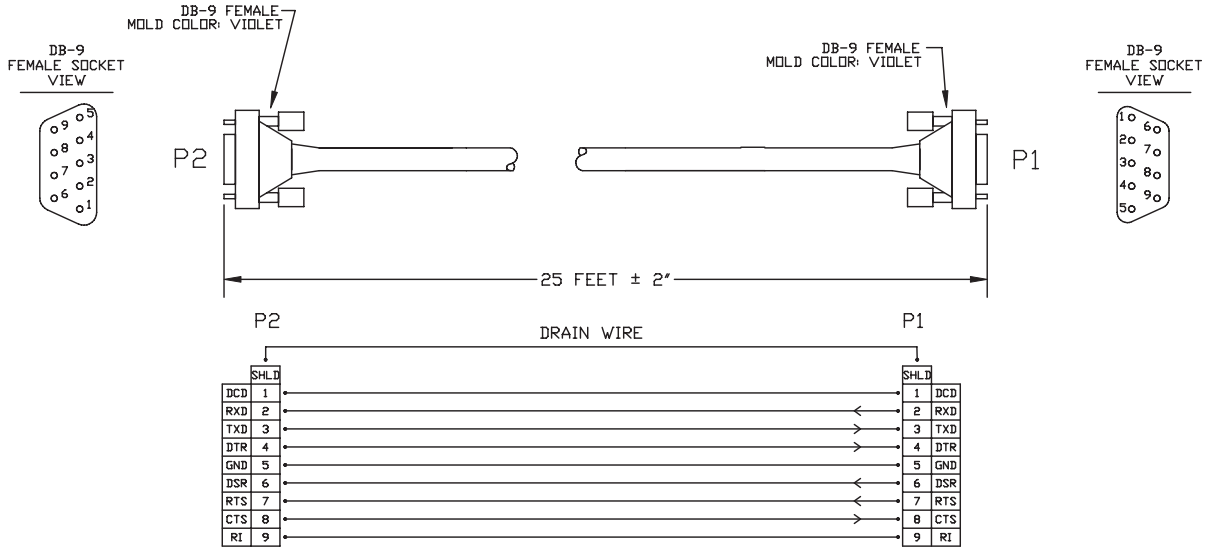
Serial (RS-232) Cables

RS-232 Cable



This cable connects a Polycom HDX system to a serial device. It is DB-9 connectors on both ends. This connection may require the null modem adapter 1517-21577-001 on page 2-41. The maximum approved length for this cable is 100 ft (30 m).

Length	Part Number	RoHS Compliant
25 ft (7.6 m)	2457-09172-001	—



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The DB-9 male connector on the Polycom HDX system has the following connections.

Pin	Signal
1	Not used
2	Rx
3	Tx
4	DTR (tied to pin 6, DSR)
5	GND
6	DSR (tied to pin 4, DTR)
7	RTS
8	CTS
9	Not used

Most devices which connect to the serial port to control the Polycom HDX system via the API only require pins 2, 3, and 5. For more information and to verify the proper cabling, refer to the documentation for your control system.

Null Modem Adapter



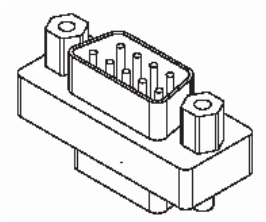
This adapter is used when connecting a Polycom HDX system to a serial device that transmits on pin 3 such as Crestron Pro2 processor. It is a male to female DB-9 adapter plug. This connection may require the RS-232 cable, part number 2457-09172-001, on page 2-39.



Do not use this adapter with an AMX device. AMX systems support both RS-232 and RS-422. Therefore, for RS-232 support, use a null modem cross-over cable that carries only pins 2, 3, and 5, with pins 2 and 3 crossed.

Length	Part Number	RoHS Compliant
—	1517-61577-001	Yes

DB9F	DB9M
PIN 1&6	PIN 4
PIN 2	PIN 3
PIN 3	PIN 2
PIN 4	PIN 1&6
PIN 5	PIN 5
PIN 7	PIN 8
PIN 8	PIN 7
PIN 9	N/C





Drawings and part numbers are provided for reference only. Polycom claims no responsibility or liability for the quality, performance, or reliability of cables based on these reference drawings, other than cables provided by Polycom. Contact your Polycom distributor or Polycom Custom/Vertical Products to order cables that meet the appropriate manufacturing tolerances, quality, and performance parameters for your application.

3

Using the API

The Application Programming Interface (API) is a set of commands for advanced users who want to automate a Polycom HDX system. You can use the API by connecting a control system or computer RS-232 serial port to the Polycom HDX system. Or, you can use Telnet over the LAN to use the API.

Using the API with an RS-232 Interface

If you use an RS-232 interface to send API commands, you must connect and configure the control system or computer and the Polycom HDX system for serial communication.

Configuring the RS-232 Interface

If you use the API with a serial connection, make sure that the RS-232 interfaces of the Polycom HDX system and your computer are configured appropriately.

To access the RS-232 settings on your system, select **System > Admin Settings > General Settings > Serial Port**.

Configure the Baud Rate and RS-232 Mode options as follows:

Option	Configure this way on your computer	Configure this way on the Polycom HDX system
Baud Rate	Must be the same rate for both devices. Available rates are: 9600 14400 19200 38400 57600 115200	
RS-232 Mode	—	Control

The RS-232 port on the Polycom HDX system supports two modes: Control and Pass-Thru.

In Control Mode, a device (for example, a computer) connected to the RS-232 port can control the system using the API.

In Pass-Thru Mode, the operational modes of both devices' RS-232 ports depend on the port configuration of each device.

Starting an API Session via an RS-232 Interface

After you have verified that the Polycom HDX system and your computer are both configured appropriately, set up both devices as follows:

1. Power off the computer and the Polycom HDX system.
2. Use an RS-232 cable to connect the control system or computer RS-232 port to an RS-232 port on the Polycom HDX system as shown in the following illustration. This connection may require the null modem adapter 1517-21577-001 on page 2-41.



3. Power on the computer and the Polycom HDX system.
4. From the computer, start a serial session using HyperTerminal or another appropriate utility.

Using the API with a LAN Connection

If you have a computer connected to the LAN, you can send API commands to the Polycom HDX system via Telnet port 24.

1. On the computer, open a command line interface.
2. Start a Telnet session using the Polycom HDX system IP address and port number — for example, `telnet 10.11.12.13 24`.

   You cannot use Telnet to access the system if Security Mode is enabled.

Using the API Controller Code

In cooperation with the leading touch panel controller manufacturers, Polycom Video Division is proud to offer its own version of controller code designed to run on Crestron systems. This independent code base was developed specifically to address issues of code compatibility with video system software releases. It provides a fully executable controller program but also serves as a guideline for ongoing development using Polycom preferred methodology and commands.

Companion documents are also available to further explain how to interface your controller with Polycom video systems and utilize the API efficiently. To access the code, visit the A/V Professionals Solutions page at www.polycom.com.

4

System Commands

This chapter describes the API commands for software version 1.0.2.
For an alphabetical list of all the commands, refer to the table of contents for this document.

About the API Commands

Syntax Conventions

The following conventions are used for the API command descriptions in this chapter. All of the commands are case sensitive.

Convention	Meaning
`<param1|param2|param3>`	Multiple valid parameters are enclosed in angle brackets and separated by the pipe ("|") character. Example: `allowdialing <yes|no|get>` shows that the `allowdialing` command must be followed by one of the parameters listed.
`[param]` `["param"]`	Optional parameters are enclosed in square brackets. Quotation marks indicate strings to be supplied by the user. Example: `teleareacode set ["telephone_area_code"]` shows that you can supply a value for the area code, or omit it and let the default value apply. You do not need to enclose the actual value in quotes unless it contains a space.
`{a..z}`	A range of possible alphanumeric values is enclosed in braces. Example: `abk letter {a..z}` shows that the `abk` command can be used to return address book entries that begin with an alphanumeric character in the range specified. Example: `camera near {1..4}` shows that the `camera` command can be used to select camera 1, 2, 3, or 4 at the near site.
`"x"`	Quotation marks indicate strings to be supplied by the user. You do not need to enclose the value in quotes unless it contains a space.

Although the API command parser may accept the minimum number of characters in a command which makes it unique, you should always use the full command string.

Availability of Commands

The availability of API commands depends on the type of system and optional equipment installed or connected. If a particular command is not supported on the system, the command returns feedback such as "`error: this command is not supported on this model`" or "`command is not available in current system configuration`".

Deprecated commands are included for backward compatibility only and are not recommended for use with this version. Suitable replacements are noted for each deprecated command.

!

Executes a previously used command from the history list, starting with a specific number or letter.

Syntax

```
! “string”
! {1..64}
```

Parameter	Description
“string”	Specifies the most recent command from the history list that begins with this string.
{1..64}	Specifies the Nth command in the history list, where N is 1 through 64.

Feedback Examples

```
->gatewaynumber set 123456789
gatewaynumber 123456789
->hangup video
hanging up video call
->history
1  gatewaynumber set 123456789
2  hangup video
```

Each of the following `! <letter or number>` commands executes the command and prints its output from the history list, as follows.

```
->!1
gatewaynumber set 123456789
gatewaynumber 123456789
->!2
hangup video
hanging up video call
->h323name get
h323name testip
->!h
h323name get
h323name testip
->history
1 gatewaynumber set 123456789
2 hangup video
3 gatewaynumber set 123456789
4 hangup video
5 h323name get
6 h323name get
```

See Also

For information about the history list, refer to the `history` command on page 4-117.

abk

Returns local directory (address book) entries.

Syntax

```
abk all
abk batch {0..59}
abk batch search “pattern” “count”
abk batch define “start_no” “stop_no”
abk letter {a..z}
abk range “start_no” “stop_no“
abk refresh
```

Parameter	Description
`all`	Returns all the records in the local directory.
`batch`	Returns a batch of 10 local directory entries. Requires a batch number, which must be an integer in the range `{0..59}`. Batches should be requested sequentially to ensure receiving a complete list of entries.
`search`	Specifies a batch search.
`“pattern”`	Specifies pattern to match for the batch search.
`“count”`	Specifies the number of entries to list that match the pattern.
`define`	Returns a batch of entries in the range defined by “`start_no`” to “`stop_no`.” Deprecated. Polycom recommends using `abk range` instead of this command.
`“start_no”`	Specifies the beginning of the range of entries to return.
`“stop_no”`	Specifies the end of the range of entries to return.

`letter`	Returns entries beginning with the letter specified from the range `{a..z}`. Requires one or two alphanumeric characters. Valid characters are:
	`- _ / ; @ , . \`
	`0` through `9`
	`a` through `z`

`range`	Returns local directory entries numbered `“start_no”` through `“stop_no”`. Requires two integers.
`refresh`	Refreshes the local directory entries cache.

Feedback Examples

- `abk range 0 3`
  might return
  ```
  abk 0. Ascot spd:384 num:1.512.xxxxxxx
  abk 1. Austn spd:2x64 num:1.512.xxxxxxx
  abk 2. Japan spd:384 num:81.03.xxxxxxxx
  abk 3. John spd:Auto num: 1.512.xxxxxxx
  ```

- `abk letter a`
  might return
  ```
  abk 0. Ascot spd:384 num 1.512.xxxxxxx
  abk 1. Austn spd:2x64 num:1.512.xxxxxxx
  ```

- `abk batch define 0 3`
  lists the records 0-3

- abk batch 0
  might return
  ```
  abk 0. 123 spd:Auto num:172.26.138.101
  abk 1. 172.26.48.125 spd:128 num:172.26.48.125
  abk 2. 172.26.48.96 spd:128 num:172.26.48.96
  abk 3. 1MPTest spd:Auto num:
  abk 4. Loopback 1 spd:2x64 num:1.700.9581108
  abk 5. Loopback 2 spd:2x64 num:1.700.7308982
  abk 6. Polycom Austin Stereo spd:384 num:1.512.6977918
  abk 6. Polycom Austin Stereo spd:384 num:stereo.polycom.com
  abk 7. Polycom Austin USA spd:384 num:1.512.6977926
  abk 8. Polycom Austin USA IP spd:256 num:lobby.austin.polycom.com
  abk 9. Polycom Australia spd:384 num:61.02.99788088
  ```

Note: Entries with multiple addresses (for example, IP address and ISDN number) return each address type on separate lines with the same record number.

Comments

`abk` entries are entries stored on the system. `gabk` entries are entries stored on the GDS. In the user interface, the address book and global address book features are referred to as *directory* and *global directory*.

addressdisplayedingab

Specifies whether to make the system address public or private in the global directory.

Syntax

```
addressdisplayedingab get
addressdisplayedingab private
addressdisplayedingab public
```

Parameter	Description
`get`	Returns the current setting.
`private`	Specifies not to display the system address in the global directory.
`public`	Displays the system address in the global directory.

Feedback Examples

```
addressdisplayedingab private
addressdisplayedingab public
```

Command History

Introduced in VSX™ version 8.5.

adminpassword

Sets or gets the remote access password. This command is not supported on the serial port.

Syntax

```
adminpassword get
adminpassword set ["password"]
```

Parameter	Description
`get`	Returns the current remote access password.
`set`	Sets the password used for remote management of the system if followed by the `password` parameter. To erase the current setting, omit the `password` parameter.
`"password"`	User-defined password. Valid characters are: a through z (lower and uppercase), `-`, `_`, `@`, `/`, `;`, `,`, `.`, `\`, `0` through `9`. The password cannot include spaces.

Feedback Examples

- `cannot change password if one is not set` (returned if no remote access password is set)
- `adminpassword set Mypsswd`
  returns
  `adminpassword Mypsswd`
- `adminpassword set "My psswd"`
  returns
  `error: command has illegal parameters`

advnetstats

Gets advanced network statistics for a call connection.

Syntax

```
advnetstats [{0..n}]
```

Parameter	Description
{0..n}	Specifies a connection in a multipoint call, where n is the maximum number of connections supported by the system. 0 is call #1, 1 is call #2, 2 is call #3, and so on. Select a number from this range to specify a remote site call for which you want to obtain advanced network statistics. Omit this parameter when retrieving statistics for a point-to-point call.

Feedback Examples

```
advnetstats 1
```

returns

```
call:1 tar:24k rar:24k tvr:64.3k rvr:104k
tvru:63.8k rvru:114.6k tvfr:15.0 rvfr:15.0 vfe ---
tapl:66 rapl:0 taj:46mS raj:40mS tvpl:122 rvpl:0
tvj:21mS rvj:60mS dc:--- rsid:Polycom_4.2
```

Returned parameters are:

```
tar=Transmit audio rate
rar=Receive audio rate
tvr=Transmit video rate
rvr=Receive video rate
tvru=Transmit video rate used
rvru=Receive video rate used
tvfr=Transmit video frame rate
rvfr=Receive video frame rate
vfe=Video FEC errors
tapl=Transmit audio packet loss (H.323 calls only)
tlsdp=Transmit LSD protocol (H.320 calls only)
rapl=Receive audio packet loss (H.323 calls only)
rlsdp=Receive LSD protocol (H.320 calls only)
taj=Transmit audio jitter (h.323 calls only)
tlsdr=Transmit LSD rate (H.320 calls only)
raj=Receive audio jitter (H.323 calls only)
rlsd=Receive LSD rate (H.320 calls only)
tvpl=Transmit video packet loss (H.323 calls only)
tmlpp=Transmit MLP protocol (H.320 calls only)
rvpl=Receive video packet loss (H.323 calls only)
rmlpp=Receive MLP protocol (H.320 calls only)
tvj=Transmit video jitter (H.323 calls only)
tmlpr=Transmit MLP rate (H.320 calls only)
rvj=Receive video jitter (H.323 calls only)
rmlpr=Receive MLP rate (H.320 calls only)
dc=Data conference
rsid=Remote system id
```

alertusertone

Sets or gets the tone used for user alerts.

Syntax

```
alertusertone <get|1|2|3|4>
```

Parameter	Description
`get`	Returns the current setting.
`1|2|3|4`	Sets the user alert to the corresponding tone.

Feedback Examples

```
alertusertone 1
```

alertvideotone

Sets the tone used for incoming video calls.

Syntax

```
alertvideotone <get|1|2|3|4|5|6|7|8|9|10>
```

Parameter	Description
`get`	Returns the current setting.
`1|2|3|4|5|6|7|8|9|10`	Sets the incoming video alert to the corresponding tone.

Feedback Examples

```
alertusertone 8
```

all register

Registers for most commonly-used user registration events.

Syntax

```
all register
```

Feedback Examples

```
all register
```

might return

```
callstate registered
camera registered
chaircontrol register
linestate registered
mute registered
pip registered
popupinfo registered
preset registered
screen registered
vcbutton registered
volume registered
sleep registered
```

Comments

Registers changes to any of the following types of parameters:

- Current near-site or far-site source
- State of privacy
- Current volume level
- Active camera presets
- Status of point-to-point or multipoint calls
- Status of physical ISDN/IP connection to codec
- PIP state
- Chair control
- System information
- Gatekeeper status

This command is particularly useful when two different control systems are being used simultaneously, such as the web and API commands. The system maintains the registration changes through restarts.

To register for events not included in this feedback, refer to the specific registration command.

See Also

The `registerall` command on page 4-188 is an alias for this command.

To unregister user feedback, use the `all unregister` command on page 4-12 or the `unregisterall` command on page 4-230.

all unregister

Simultaneously unregisters all registered user feedback so that the API no longer reports changes to the parameters.

Syntax

```
all unregister
```

Feedback Examples

```
all unregister
```

might return

```
callstate unregistered
camera unregistered
linestate unregistered
mute unregistered
pip unregistered
popupinfo unregistered
preset unregistered
screen unregistered
vcbutton unregistered
volume unregistered
sleep unregistered
configchange unregistered
```

Comments

The following types of parameters are unregistered:

- Current near-site or far-site source
- State of privacy
- Current volume level
- Active camera presets
- Status of point-to-point or multipoint calls
- Status of physical ISDN/IP connection to codec
- PIP state
- Chair control
- System information
- Gatekeeper status

See Also

The `unregisterall` command on page 4-230 is an alias for this command.

To register for user feedback, use the `all register` command on page 4-11 or the `registerall` command on page 4-188.

allowabkchanges

Sets or gets the Allow Directory Changes setting.

Syntax

```
allowabkchanges <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the Allow Directory Changes setting.
no	Disables the Allow Directory Changes setting.

Feedback Examples

- `allowabkchanges no`
- `allowabkchanges yes`

Comments

If this option is enabled, the user has access to the **New**, **Edit**, and **Delete** operations in the directory.

allowcamerapresetssetup

Sets or gets whether users are allowed to change camera presets.

Syntax

```
allowcamerapresetssetup <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Allows users to change camera presets.
no	Prevents users from changing camera presets.

Feedback Examples

- `allowcamerapresetssetup no`
- `allowcamerapresetssetup yes`

allowmixedcalls

Sets or gets the ability to place and receive mixed protocol multipoint calls (IP and ISDN). It allows the administrator to disable this ability for security reasons.

Syntax

```
allowmixedcalls <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables mixed IP and ISDN calls.
no	Disables mixed IP and ISDN calls.

Feedback Examples

- `allowmixedcalls no`
- `allowmixedcalls yes`

Comments

This option is only visible on screen if ISDN and IP have both been enabled on the Call Preference screen.

allowusersetup

Adds or removes the **User Settings** icon on the System screen, which allows users to access the User Settings screen.

Syntax

```
allowusersetup <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the **User Settings** icon.
no	Disables the **User Settings** icon.

Feedback Examples

- `allowusersetup no`
- `allowusersetup yes`

Comments

This command is useful to prevent users from changing the user settings.

answer

Answers incoming video or analog phone calls.

Syntax

```
answer <video|phone>
```

Parameter	Description
video	Answers incoming video calls when Auto Answer Point to Point Video or Auto Answer Multipoint Video is set to No.
phone	Answers incoming analog phone calls.

Feedback Examples

- `answer incoming video call failed`
- `answer incoming video call passed`

areacode

Sets or gets the area code for all ISDN BRI lines. This command is only applicable if you have a BRI network interface connected to your system.

Syntax

```
areacode get
areacode set "areacode"
```

Parameter	Description
`get`	Returns the area code information.
`set`	Sets the ISDN BRI area code when followed by the area `code` parameter. To erase the current setting, omit `"areacode"`.
`"areacode"`	Area code to use for all BRI lines.

Feedback Examples

```
areacode set 212
```

returns

```
areacode 212
```

Comments

This area code is associated with the area where the system is used.

autoanswer

Sets or gets the Auto Answer Point to Point Video mode, which determines how the system will handle an incoming call in a point-to-point video conference.

Syntax

```
autoanswer <get|yes|no|donotdisturb>
```

Parameter	Description
yes	Allows any incoming video call to be connected automatically. This is the default setting.
no	Prompts the user to answer incoming video calls.
donotdisturb	Notifies the user of incoming calls, but does not connect the call. The site that placed the call receives a Far Site Busy (H.320) or Call Rejected (H.323) code.
get	Returns the current setting.

Feedback Examples

- `autoanswer donotdisturb`
- `autoanswer no`
- `autoanswer yes`

Comments

If `autoanswer` is set to `no` or `donotdisturb`, you must rely on API session notifications to answer inbound calls.

backlightcompensation

Sets or gets the Backlight Compensation mode.

Syntax

```
backlightcompensation <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables Backlight Compensation. The camera automatically adjusts for a bright background.
no	Disables the option.

Feedback Examples

- `backlightcompensation no`
- `backlightcompensation yes`

basicmode

Sets or gets the Basic Mode configuration, a limited operating mode that uses H.261 for video and G.711 for audio. Basic mode provides administrators with a workaround for interoperability issues that cannot be solved using other methods.

Syntax

```
basicmode <get|on|off>
```

Parameter	Description
`get`	Returns the current setting.
`on`	Enables basic mode.
`off`	Disables basic mode.

Feedback Examples

- `basicmode on`
- `basicmode off`

Command History

Introduced in VSX version 8.0.

bri1enable, bri2enable, bri3enable, bri4enable

Sets or gets the configuration of the specified ISDN BRI line. This command is only applicable if you have a BRI network interface connected to your system.

Syntax

```
bri1enable <get|yes|no>
bri2enable <get|yes|no>
bri3enable <get|yes|no>
bri4enable <get|yes|no>
```

Parameter	Description
`get`	Returns the status of the BRI line—yes if enabled, no if disabled.
`yes`	Enables the BRI line.
`no`	Disables the BRI line.

Feedback Examples

- `bri1enable no`
- `bri1enable yes`

briallenable

Sets or gets the configuration of all ISDN BRI lines. This command is only applicable if you have a BRI network interface connected to your system.

Syntax

```
briallenable <get|yes|no>
```

Parameter	Description
`get`	Returns the status of all BRI lines—yes if enabled, no if disabled.
`yes`	Enables all BRI lines.
`no`	Disables all BRI lines.

Feedback Examples

- `bri1enable yes`
- `bri2enable yes`
- `bri3enable yes`
- `bri4enable yes`

Comments

`briallenable yes` only enables lines where the directory numbers have been populated.

button

Simulates Polycom remote control buttons.

Syntax

```
button <#|*|0|1|2|3|4|5|6|7|8|9|.>
button <down|left|right|select|up>
button <auto|callhangup|far|graphics|near|zoom+|zoom->
button <help|mute|volume+|volume-|lowbattery>
button <pickedup|putdown>
button <camera|delete|directory|home|keyboard|period|pip|preset>
button <info|menu|slides|option>
button "valid_button" ["valid_button" ...]
```

Parameter	Description
`.`	Types a period (dot) if the cursor is on a text field.
`#`	Sends the # button signal to the user interface.
`*`	Sends the ***** button signal to the user interface.
`["valid_button" ...]`	Sends one or more remote control button signals.
`0|1|2|3|4|5|6|7|8|9`	Sends the corresponding numeric button signal to the user interface.
`auto`	Sends the **Auto** button signal to the user interface.
`back`	Simulates the **Back** button on multiple-page screens.
`callhangup`	Sends the call **Hang-Up** button signal to the user interface.
`camera`	Sends the **Camera** button signal to the user interface.
`delete`	Sends the **Delete** button signal to the user interface.
`directory`	Sends the **Directory** button signal to the user interface.
`down`	Sends the down arrow button signal to the user interface.
`far`	Sends the **Far** button signal to the user interface.
`graphics`	Sends the **Graphics** button signal to the user interface.
`help`	Sends the **Help** button signal to the user interface.
`home`	Sends the **Home** button signal to the user interface.
`info`	Sends the **Info** button signal to legacy systems. Deprecated.
`keyboard`	Brings up the on-screen keyboard if the cursor is on a text field.
`left`	Sends the left arrow button signal to the user interface.

Parameter	Description
`lowbattery`	Simulates a low battery alert for the remote control.
`menu`	Sends the **Menu** button signal to legacy systems. Deprecated. Polycom recommends using `back` instead of this button.
`mute`	Sends the **Mute** button signal to the user interface, causing a toggle of mute state.
`near`	Sends the **Near** button signal to the user interface.
`option`	Sends the **Option** button signal to the user interface.
`period`	Types a period (dot) if the cursor is on a text field.
`pickedup`	Sends a signal indicating that the remote control has been picked up (remote control feet are out).
`pip`	Sends the **PIP** button signal to the user interface.
`preset`	Sends the **Preset** button signal to the user interface.
`putdown`	Sends signal indicating that the remote control has been set down (remote control feet are pushed in).
`right`	Sends the right arrow button signal to the user interface.
`select`	Sends the **Select** (center button) button signal to the user interface.
`slides`	Sends the **Slides** button signal to legacy systems. Deprecated. Polycom recommends using `graphics` instead of this button.
`up`	Sends the up arrow button signal to the user interface.
`volume-`	Sends the volume **-** button signal to the user interface.
`volume+`	Sends the volume **+** button signal to the user interface.
`zoom-`	Sends the zoom **-** button signal to the user interface.
`zoom+`	Sends the zoom **+**button signal to the user interface.

Feedback Examples

- `button up`
  sends the up arrow command to the user interface and returns
  `button up`

- `button near left right callhangup`
  is valid and combines the following commands:
  `button near`
  `button left`

```
button right
button callhangup
```

The command checks for invalid input and reports button responses as they are processed. One of three status values is returned when the command is issued for multiple buttons:

- succeeded—all buttons are valid
- failed—all input is invalid and none can perform a valid action
- completed—some are invalid, and responses specify each as valid or invalid

For example, the command **button camera right center select** returns:

```
button camera
button right
error: button center not a recognized command
button select
button completed
```

Long `button` command sequences will complete before a second command is considered. Feedback for `button` command sequences that include multiple buttons show only the first button name.

Comments

Note that several parameters can be combined in the same command in any order.

The button commands are not recommended. When possible, use another API command instead of the button commands, which rely on the current organization of the user interface. For example, you can use the `pip` command instead of `button pip`.

See Also

For information about the IR signals to use when programming non-Polycom remote control devices for systems, refer to Appendix D, *Specifications*.

calldetailreport

Sets or gets whether to generate a report of all calls made with the system.

Syntax

```
calldetailreport <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Turns on call detail reporting.
no	Does not generate Call Detail Report.

Feedback Examples

- `calldetailreport no`
- `calldetailreport yes`

Comments

`calldetail no` disables both the Call Detail Report and Recent Calls features.

callencryption (deprecated)

Sets or gets the call encryption mode. You cannot use this command while a call is in progress.

With the implementation of the `encryption` command on page 4-80, this command has been deprecated.

Syntax

```
callencryption <get|whenavailable|disabled>
```

Parameter	Description
`get`	Returns the current setting.
`whenavailable`	Use encryption when the far site is capable of encryption. Returns `whenavailable`.
`disabled`	Disables call encryption.

Feedback Examples

- `callencryption disabled`
- `callencryption whenavailable`

Comments

The Encryption options are only visible on the user interface if an encryption key has been entered.

Command History

Deprecated in VSX version 8.5.

callinfo

Returns information about the current call. If you are in a multipoint call, this command returns one line for each site in the call.

Syntax

```
callinfo all
callinfo callid “callid”
```

Parameter	Description
`all`	Returns information about each connection in the call.
`callid`	Returns information about the connection with the specified call ID.

Feedback Examples

- `callid` information is returned in the following format:

  ```
  callinfo:<callid>:<Far site name>:<far site
  number>:<speed>:<connection status>:<mute status>:<call
  direction>:<call type>.
  ```

- `callinfo all`

  returns information similar to

  ```
  callinfo begin
  callinfo:43:103:103:0:connected:notmuted:outgoing:voiceonly
  callinfo:36:AustinFX:austinrfx:256:connected:notmuted:outgoing:vid
  eocall
  callinfo end
  ```

- `callinfo callid 36`

  returns information similar to

  ```
  callinfo:36:AustinFX:austinfx:256:connected:notmuted:outgoing:vide
  ocall
  ```

- `system is not in a call`

Command History

Introduced in VSX version 8.0.

callstate

Sets or gets the call state notification for call state events.

Syntax

```
callstate <get|register|unregister>
```

Parameter	Description
`get`	Returns the current setting.
`register`	Registers the system to give notification of call activities.
`unregister`	Disables the register mode.

Feedback Examples

Key off of "`cs:`"

- `callstate register`
- returns
  `callstate registered`
  acknowledging that the session is now registered to list call state activities.
- `callstate unregister`

  returns
  `callstate unregistered`

The following is an example of callstate data returned after registering.

```
cs: call[0] chan[0] dialstr[IP:192.168.1.103] state [RINGING]
cs: call[0] chan[0] dialstr[IP:192.168.1.103] state [RINGING]
cs: call[0] chan[0] dialstr[IP:192.168.1.103] state [CONNECTED]
cs: call[0] chan[0] dialstr[IP:192.168.1.103] state [COMPLETE]
active: call[0] speed[128]
cleared: call[0] line[0] bchan[0] cause[16]
dialstr[IP:192.168.1.103]
ended: call[0]
```

See Also

Polycom recommends using the `notify` command on page 4-163 and `nonotify` command on page 4-162 instead of `callstate register` and `callstate unregister` as those notifications are easy to parse.

For more information about call status messages, refer to Appendix C, *Status Messages*.

callstats

Returns call summary information.

Syntax

```
callstats
```

Feedback Examples

`callstats` might return something like

```
timeinlastcall 0:02:35
totalnumberofcalls 23
totalnumberofipcalls 23
totaltimeipcalls 2:08:44
percentageipcalls 100%
totalnumberofisdncalls 0
totaltimeisdncalls 00:00:00
percentageisdncalls 0%
```

camera

Sets or gets the near-site or far-site camera settings.

Syntax

```
camera near {1..6}
camera far {1..5}
camera <near|far> move <left|right|up|down|zoom+|zoom-|stop>
camera <near|far> move <continuous|discrete>
camera <near|far> source
camera <near|far> stop
camera near <getposition|setposition “x” “y” “z”>
camera near ppcip
camera for-people {2..5}
camera for-content {2..5}
camera list-content
camera <register|unregister>
camera register get
```

Parameter	Description
`near`	Specifies that the command selects or controls the near camera.
`far`	Specifies that the command selects or controls the far camera.
`{1..6}`, `{1..5}`	Specifies a near or far camera as the main video source. `camera near 6` selects People+Content™ IP if it is running and connected to the system.
`move`	Changes the near or far camera's direction or zoom. Only `continuous` and `discrete` return feedback. Valid directions are: left, right, up, down, zoom+, zoom-, stop, continuous, and discrete.
`left`	Starts moving the camera left.
`right`	Starts moving the camera right.
`up`	Starts moving the camera up.
`down`	Starts moving the camera down.
`zoom+`	Starts zooming in.
`zoom-`	Starts zooming out.
`stop`	Stops the near or far camera when in continuous mode. Returns no feedback.
`continuous`	Selects continuous movement mode. The camera will move in direction specified until a `camera <near|far> move stop` command is sent.

Parameter	Description
`discrete`	Selects discrete movement mode. The camera will move a small amount in the direction specified and then stop. No stop command is required.
`source`	Returns the number of the near or far camera source currently selected.
`getposition`	Gets the pan, tilt, and zoom coordinates of the currently selected PTZ camera in the format of `pan tilt zoom`.
`setposition “x” “y” “z”`	Sets the pan (x), tilt (y), and zoom (z) coordinates of the currently selected PTZ camera. Camera PTZ range: -880 <= pan <= 880 -300 <= tilt <= 300 0 <= zoom <= 1023 **Note:** Some D30 cameras might not be able to reach the designed range limit. For example, although the pan limit is 880, the camera might only be able to reach 860.
`ppcip`	Specifies People+Content IP as the main video source if it is running and connected to the system.
`for-people {2..5}`	Sets the source for the specified camera to People.
`for-content {2..5}`	Sets the source for the specified camera to Content.
`list-content`	Gets a list of cameras configured as Content.
`register`	Registers to receive feedback when the user changes the camera source. Returns the current camera registration state when followed by the `get` parameter.
`unregister`	Unregisters to receive feedback when the user changes the camera source.

Feedback Examples

- `camera far 2`
  causes the remote terminal to begin sending its camera 2.
- `camera far move left`
  causes the far camera to start panning to the left.
- `camera near move zoom+`
  causes the near camera to zoom in.
- `camera registered`
- `camera unregistered`
- `camera near 2`

- `camera far 1`
- `camera near source 2`
- `event: camera near move continuous` (returned by `camera near move continuous`)
- `event: camera near move discrete` (returned by `camera near move discrete`)
- `camera near position x y z` (returned by `camera near getposition`)
- `camera near setposition x y z`

cameradirection

Sets or gets the camera pan direction.

Syntax

```
cameradirection <get|normal|reversed>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the direction of the camera to normal; the camera moves in the same direction as the left/right arrows on the remote control.
`reversed`	Sets the direction of the camera to reversed; the camera moves in the opposite direction of the left/right arrows on the remote control.

Feedback Examples

- `cameradirection normal`
- `cameradirection reversed`

camerainput

Sets or gets the format for a video source.

Syntax

```
camerainput <1|2|3> <get|s-video|composite|component>
camerainput <4|5> <get|dvi|vga>
```

Parameter	Description
<1..5>	Specifies the video source. `camerainput 5` is available only on the Polycom HDX 9004.
get	Returns the current setting.
s-video	Specifies that the video source is connected using S-Video.
composite	Specifies that the video source is connected using a composite connector.
component	Specifies that the video source is connected using a component connector.
dvi	Specifies that the video source is connected using DVI.
vga	Specifies that the video source is connected using VGA.

Feedback Examples

```
-> camerainput 1 get
camerainput 1 component
-> camerainput 2 get
camerainput 2 s-video
-> camerainput 3 get
camerainput 3 s-video
-> camerainput 4 get
camerainput 4 vga
-> camerainput 2 composite
camerainput 2 composite
-> camerainput 2 s-video
camerainput 2 s-video
-> camerainput 4 dvi
camerainput 4 dvi
-> camerainput 4 vga
camerainput 4 vga
```

Command History

Introduced in VSX version 8.5.

chaircontrol

Sends various chair control commands while the system is in a multipoint call.

Syntax

```
chaircontrol end_conf
chaircontrol hangup_term “term_no”
chaircontrol list
chaircontrol rel_chair
chaircontrol <register|unregister>
chaircontrol req_chair
chaircontrol req_floor
chaircontrol req_term_name “term_no”
chaircontrol req_vas
chaircontrol set_broadcaster “term_no”
chaircontrol set_password “string”
chaircontrol set_term_name “term_no” “term_name”
chaircontrol stop_view
chaircontrol view “term_no”
chaircontrol view_broadcaster
```

Parameter	Description
`end_conf`	Ends the call and returns the same feedback as hangup_term for each site in the call.
`hangup_term “term_no”`	Disconnects the specified site from the call.
`list`	Lists the sites in the call.
`rel_chair`	Releases the chair.
`register`	Registers to receive feedback on all chair control operations.
`unregister`	Unregisters (stops feedback on all chair control operations).
`req_chair`	Requests the chair.
`req_floor`	Requests the floor.
`req_term_name “term_no”`	Requests the name for the specified terminal number.
`req_vas`	Requests voice-activated switching.
`set_broadcaster “term_no”`	Requests the specified terminal to become the broadcaster.
`set_password “string”`	Sets the chaircontrol password. This password is the Meeting Password (**System > Admin Settings > General Settings > Security**: **Meeting Password**).

Parameter	Description
`set_term_name “term_no” “term_name”`	Sets the name for the specified terminal number.
`stop_view`	Stops viewing the specified terminal.
`view “term_no”`	Views the specified terminal.
`view_broadcaster`	Views the broadcaster.

Feedback Examples

- `rel_chair & view 1.2` (returned from `chaircontrol rel_chair`)
- `req_floor & view 1.1` (returned from `chaircontrol req_floor`)
- `req_vas & view 1.1` (returned from `chaircontrol req_vas`)
- `view “term_no”` (returned from `chaircontrol view “term_no”`)
- `view_broadcaster` (returned from `chaircontrol view_broadcaster`)
- `view “term_no”` (returned from `chaircontrol set_broadcaster “term_no”`)
- `chaircontrol del_term 1.3`
  `cleared: call[xx]`
  `dialstring[<IP|ISDN Number> <system name>]`
  `ended call[xx]` (returned from `chaircontrol “hangup_term” “term_no”`)
- `chaircontrol registered` (returned from `chaircontrol register`)
- `chaircontrol unregistered` (returned from `chaircontrol unregister`)
- `chaircontrol` commands sent when the system is not in an MCU call return something like `chaircontrol req_floor not in mcu call`

Comments

Terminal numbers are set by the MCU and are of the form x.y where x is the MCU and y is the participant.

You only need to enclose a parameter in quotes if it contains a space.

colorbar

Turns the video diagnostics color bars on or off.

Syntax

```
colorbar <on|off>
```

Parameter	Description
on	Turns on the color bar test pattern.
off	Turns off the color bar test pattern.

Feedback Examples

- `colorbar on`
- `colorbar off`

cmdecho

Turns command echoing on or off.

Syntax

```
cmdecho <on|off>
```

Parameter	Description
on	Turns on command echoing so that everything you type is echoed on the screen.
off	Turns on command echoing so that nothing you type is echoed on the screen.

Comments

This setting defaults to on every time the system powers up. You might want to turn off command echoing when sending batches of commands (in an init script) to simplify the output.

Command History

Introduced in Polycom HDX version 1.0.

configchange (deprecated)

Sets or gets the notification state for configuration changes. This command has been deprecated.

Syntax

```
configchange <get|register|unregister>
```

Parameter	Description
`get`	Returns the current setting.
`register`	Registers to receive notifications when configuration variables have changed.
`unregister`	Unregisters to receive notifications when configuration variables have changed.

Feedback Examples

Key off of "`configchange:`"

- `configchange registered`
- `configchange unregistered`

configdisplay

Sets or gets the video format and aspect ratio for Monitor 1 or Monitor 2.

Syntax

```
configdisplay get
configdisplay <monitor1|monitor2> get
configdisplay <monitor1|monitor2>
  <s_video|composite|vga|dvi|component> <4:3|16:9>
configdisplay monitor2 off
```

Parameter	Description
`get`	Returns the current setting.
`monitor1`	Specifies Monitor 1.
`monitor2`	Specifies Monitor 2.
`s_video`	Sets the specified display to **S-Video** format.
`composite`	Sets the specified display to **Composite** format.
`vga`	Sets the specified display to **VGA** format.
`dvi`	Sets the specified display to **DVI** format.
`component`	Sets the specified display to **Component** format.
`4:3`	Sets the display aspect ratio to **4:3** (standard).
`16:9`	Sets the display aspect ratio to **16:9** (wide screen).
`off`	Sets Monitor 2 to `off`.

Feedback Examples

- `configdisplay monitor1 vga 16:9`
- `configdisplay monitor2 s_video 4:3`
- `configdisplay monitor1 vga 4:3`
  sets the primary display to VGA with aspect ratio 4:3
- `configdisplay monitor1 s_video 16:9`
  sets the primaray display to S-Video with aspect ratio 16:9
- `configdisplay get`
  might return something like
  `configdisplay monitor1 vga 4:3, monitor2 s_video off`

Command History

Introduced in VSX version 8.0.

configpresentation

Sets or gets the content presentation settings for Monitor 1 or Monitor 2.

Syntax

```
configpresentation get
configpresentation <monitor1|monitor2> get
configpresentation monitor1 <near|far|content|near-or-far|
  content-or-near|content-or-far|all|none>
configpresentation monitor2 <near|far|content|near-or-far|
  content-or-near|content-or-far|all|none>
configpresentation monitor1 "value" monitor2 "value"
```

Parameter	Description
`get`	Returns the current settings for the active monitors.
`monitor1`	Specifies settings for Monitor 1.
`monitor2`	Specifies settings for Monitor 2.
`near`	Selects near-site video as the video source to display on the specified monitor.
`far`	Selects far-site video as the video source to display on the specified monitor.
`content`	Selects content as the video source to display on the specified monitor.
`near-or-far`	Selects both near-site and far-site video as video sources to display on the specified monitor.
`content-or-near`	Selects both near-site video and content as video sources to display on the specified monitor.
`content-or-far`	Selects both content and far-site video as video sources to display on the specified monitor.
`all`	Selects content, near-site video, and far-site video as video sources for the specified monitor.
`none`	Clears all video sources for the specified monitor.
`“value”`	Sets presentation mode for both monitors.

Feedback Examples

- `configpresentation monitor1 get`
  might return
  `configpresentation monitor1:all`
- `configpresentation monitor2 get`
  might return
  `configpresentation monitor2:near-or-far`
- error: configpresentation not applied since monitor2 is off

Command History

Introduced in VSX version 8.5.

confirmdiradd

Sets or gets the configuration for prompting users to add directory entries for the far sites when a call disconnects.

Syntax

```
confirmdiradd <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	When a call disconnects, the user is prompted to create a local directory entry for the far site if it is not already in the directory.
no	The user is not prompted to create a local directory entry after a call disconnects.

Feedback Examples

- `confirmdiradd no`
- `confirmdiradd yes`

confirmdirdel

Sets or gets the configuration for requiring users to confirm directory deletions.

Syntax

```
confirmdirdel <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	When deleting an entry from the directory (address book), the user is prompted with "Are you sure you want to delete this entry?"
no	When deleting an entry from the directory (address book), the user is not prompted with a message.

Feedback Examples

- confirmdirdel no
- confirmdirdel yes

contentauto

Sets or gets the automatic bandwidth adjustment for people and content in point-to-point H.323 calls. Automatic adjustment maintains equal image quality in the two streams.

Syntax

```
contentauto <get|on|off>
```

Parameter	Description
`get`	Returns the current setting.
`on`	Enables automatic bandwidth adjustment for people and content.
`off`	Disables automatic bandwidth adjustment for people and content. The system **Quality Preference** settings is used instead.

Feedback Examples

`contentauto get`
returns

- `contentauto on`
- `contentauto off`

Command History

Introduced in VSX version 8.0.

country

Sets or gets the country setting for the system. This allows you to specify country-specific calling parameters for your location.

Syntax

```
country get
country set {afghanistan...zimbabwe}
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the country. A country name parameter is required.
`{algeria...zimbabwe}`	Name of a country from the system's country list. Use quotation marks around a compound name or strings containing spaces. Example: `"united states"`

Feedback Examples

- `country germany`
- `country set "united states"`
  returns
  `country "united states"`

cts

Sets or gets the CTS serial interface control signal (clear to send) configuration. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
cts <get|normal|inverted|ignore>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (high voltage is logic 1).
`inverted`	Sets the signal to inverted (low voltage is logic 1).
`ignore`	Ignores the signal.

Feedback Examples

- `cts normal`
- `cts inverted`

Comments

The default setting for this signal is "`normal`".

daylightsavings

Sets or gets the daylight savings time setting. When you enable this setting, the system clock automatically changes for daylight saving time.

Syntax

```
daylightsavings <get|yes|no>
```

Parameter	Description
`get`	Returns the current setting.
`yes`	Enables automatic adjustment for daylight savings time.
`no`	Disables automatic adjustment for daylight savings time.

Feedback Examples

- `daylightsavings no`
- `daylightsavings yes`

dcd

Sets or gets the configure for the DCD serial interface control signal (data carrier detect). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dcd <get|normal|inverted>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (high voltage is logic 1).
`inverted`	Sets the signal to inverted (low voltage is logic 1).

Feedback Examples

- `dcd normal`
- `dcd inverted`

Comments

The default setting for this signal is "`normal`".

dcdfilter

Sets or gets the filter setting of the DCD serial interface control signal (data carrier detect). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dcdfilter <get|on|off>
```

Parameter	Description
`get`	Returns the current setting.
`on`	Enables the DCD filter.
`off`	Disables the DCD filter.

Feedback Examples

- `dcdfilter on`
- `dcdfilter off`

Comments

When this filter is enabled, DCD drops for 60 seconds before changing the call state. The default setting for this signal is `"off"`.

defaultgateway

Sets or gets the default gateway.

Syntax

```
defaultgateway get
defaultgateway set “xxx.xxx.xxx.xxx”
```

Parameter	Description
`get`	Returns the default gateway IP address.
`set`	Sets the default gateway when followed by the “xxx.xxx.xxx.xxx” parameter. To erase the current setting, omit the “xxx.xxx.xxx.xxx” parameter.
“xxx.xxx.xxx.xxx”	IP address to use as the default gateway.

Feedback Examples

```
defaultgateway set 192.168.1.5
```

returns

```
defaultgateway 192.168.1.5
restart system for changes to take effect. restart now? <y,n>
```

Comments

This setting can only be changed if DHCP is turned off. After making a change, you are prompted to restart the system.

dhcp

Sets or gets DHCP options.

Syntax

```
dhcp <get|off|client|server>
```

Parameter	Description
`get`	Returns the selected DHCP option.
`off`	Disables DHCP.
`client`	Enables DHCP client, setting the system to obtain an IP address from a server on your network.
`server`	Enables DHCP server, setting the system to provide IP addresses to the other computers on your network.

Feedback Examples

```
dhcp client
restart system for changes to take effect. restart now? <y,n>
```

Comments

After making a change, you are prompted to restart the system. If the user or administrator has chosen not to allow the DHCP server option, it will not be available.

dial

Dials video or audio calls either manually or from the directory.

Syntax

```
dial addressbook “addr book name”
dial auto “speed” “dialstr”
dial manual <56|64> “dialstr1” “dialstr2” [h320]
dial manual “speed” “dialstr1” [“dialstr2”] [h323|h320|ip|isdn|sip]
dial phone “dialstring”
```

Parameter	Description
`addressbook`	Dials a directory (address book) entry. Requires the name of the entry.
`“addr book name”`	The name of the directory (address book) entry. The name may be up to 25 characters. Use quotation marks around strings that contain spaces. For example: `“John Doe”`.
`auto`	Dials a video call number dialstr1 at speed of type h323 or h320. Requires the parameters `“speed”` and `“dialstr”`. Allows the user to automatically dial a number. The system first attempts H.323 and if that fails, rolls over to H.320.
`“speed”`	Valid data rate for the network.

`“dialstr”,`
`“dialstr1”,`
`“dialstr2”`
	Valid ISDN or IP directory number.

`manual`	Dials a video call number dialstr1 at speed of type h323 or h320. Requires the parameters `“speed”` and `“dialstr1”`. Use `dial manual “speed” “dialstr” “type”` when you do not want automatic call rollover or when the dialstring might not convey the intended transport (for example, an extension with an IP gateway might look like an ISDN number, but in fact corresponds to an IP address).
`56|64`	Specifies speed for two-channel calls.
`h323|h320|ip|isdn|sip`	Type of call. **Note:** The parameters `ip` and `isdn` are deprecated.
`phone`	Dials an analog phone number.
`“dialstring”`	Numeric string specifying the phone number to dial. Enclose the string in quotation marks if it includes spaces. Example: `“512 555 1212”`

Feedback Examples

- `dial manual 2x64 5551212 5551213 h320` might return

```
dialing manual
cs: call[xx] chan[0] dialstr[5551212] state[ALLOCATED]
cs: call[xx] chan[0] dialstr[5551212] state[RINGING]
cs: call[xx] chan[0] dialstr[5551212] state[CONNECTED]
cs: call[xx] chan[0] dialstr[5551212] state[CONNECTED]
cs: call[xx] chan[0] dialstr[5551212] state[COMPLETE]
cs: call[xx] chan[0] dialstr[5551212] state[COMPLETE]
active: call[xx] speed[xxx]
```

- `dial addressbook "Monday meeting"` might return

```
dialing addressbook xx
dialing Monday meeting
cs: call[xx] chan[0] dialstr[xxx.xx.xxx.xx] state[ALLOCATED]
cs: call[xx] chan[0] dialstr[xxx.xx.xxx.xx] state[RINGING]
cs: call[xx] chan[0] dialstr[xxx.xx.xxx.xx] state[CONNECTED]
cs: call[xx] chan[0] dialstr[xxx.xx.xxx.xx] state[CONNECTED]
cs: call[xx] chan[0] dialstr[xxx.xx.xxx.xx] state[COMPLETE]
cs: call[xx] chan[0] dialstr[xxx.xx.xxx.xx] state[COMPLETE]
active: call[xx] speed[xxx]
```

Comments

When searching for feedback from the dial command, expect to see the set of described strings as many times as there are channels in the call.

dialchannels

Sets or gets whether to dial ISDN channels in parallel. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
dialchannels get
dialchannels set n
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the number of channels to dial.
`n`	Sets the number of channels to dial. `n` is 8 for QBRI, 12 for PRI.

Feedback Examples

```
dialchannels 8
```

dialingdisplay

Sets or gets the home screen dialing display.

Syntax

```
dialingdisplay <get|dialingentry|displaymarquee|none>
```

Parameter	Description
`get`	Returns the current setting.
`dialingentry`	Displays a field for users to enter numbers manually.
`displaymarquee`	Displays text in the dialing entry field. Users cannot enter numbers manually when this option is selected. The text displayed is specified by the `marqueedisplaytext` command.
`none`	Removes the dialing entry field from the display.

Feedback Examples

- `dialingdisplay none`
- `dialingdisplay dialingentry`
- `dialingdisplay displaymarquee`

See Also

The text displayed is specified by the `marqueedisplaytext` command on page 4-141.

diffservaudio, diffservfecc, diffservvideo

Sets or gets the DiffServ option and specifies a priority level for audio, far-end camera control (FECC), and video, respectively. The priority level value for each can be between 0 and 63.

Syntax

```
diffservaudio get
diffservaudio set {0..63}
diffservfecc get
diffservfecc set {0..63}
diffservvideo get
diffservvideo set {0..63}
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the command. A priority level in the range `{0..63}` is required.
`{0..63}`	Specifies the priority level.

Feedback Examples

- `diffservaudio set 2`
- `type of service ip-precedence` (returned if `typeofservice` command on page 4-228 is not set to `diffserv`)

Comments

If `typeofservice` is set to `ip-precedence`, these commands are not applicable.

dir

Lists flash files. No wild cards are allowed.

Syntax

```
dir ["string"]
```

Parameter	Description
"string"	Lists flash files which partially match a string of up to 250 alphanumeric characters. To list all the files, omit "string".

Feedback Examples

- `dir dat`
- `dir abk`
- `dir`

directory

Sets or gets whether the **Directory** button appears on the home screen.

Syntax

```
directory <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the **Directory** button on the home screen.
no	Removes the **Directory** button from the home screen.

Feedback Examples

- `directory no`
- `directory yes`

display (deprecated)

Displays information about the current call or the system. With the implementation of the `callinfo` command on page 4-29 and `whoami` command on page 4-252, this command has been deprecated.

Syntax

```
display call
display whoami
```

Parameter	Description
`call`	Displays the following information about the current call: call ID, status, speed, the number to which this system is connected.
`whoami`	Returns information about the current system.

Feedback Examples

- `display call`
  returns information similar to

```
Call ID     Status                    Speed    Dialed Num
-------    ------------------         -----    ----------
37         CM_CALLINFO_CONNECTED       128     192.168.1.2
```

- `display whoami`
  returns information similar to

```
Hi, my name is: Jw_System
Serial Number: xxxxx
Brand: Polycom
Software Version:    Release 7.0 VSX - 31Sept2004
Model: VSX7000
Network Interface: PRI_E1
MP Enabled: Yes
Encryption Enabled: Yes
H.264 Enabled: Yes
H.323 Enabled: Yes
IP Address: 192.168.1.104
GMT: Wed Sept 31 00:22:09 2004
Time In Last Call: 0:43:50
Total Time In Calls: 87:17:17
Total Calls: 819
Country Code: 1
Area Code: 512
PRI Number: 5555555
```

Command History

Deprecated in VSX version 8.5.

displayglobaladdresses

Sets or gets the display of global addresses in the global directory.

Syntax

```
displayglobaladdresses <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the display of global addresses.
no	Disables the display of global addresses.

Feedback Examples

- `displayglobaladdresses no`
- `displayglobaladdresses yes`

displaygraphics

Sets or gets the display of graphic icons while in a call.

Syntax

```
displaygraphics <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the display of graphic icons.
no	Disables the display of graphic icons.

Feedback Examples

- `displaygraphics no`
- `displaygraphics yes`

displayipext

Sets or gets the display of the IP extension field. This extension is needed when placing a call through a gateway.

Syntax

```
displayipext <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the display of the IP extension.
no	Enables the display of the IP extension.

Feedback Examples

- `displayipext no`
- `displayipext yes`

Comments

When this option is selected, the extension field is visible on the Place a Call screen.

displayipisdninfo (deprecated)

Sets or gets the display of IP and ISDN information on the home screen. This command has been deprecated. Polycom recommends using the `ipisdninfo` command on page 4-126.

Syntax

```
displayipisdninfo <yes|no|both|ip-only|isdn-only|none|get>
```

Parameter	Description
`yes`	Enables the display of both IP and ISDN information. Provides feedback `both`.
`no`	Disables the display of IP and ISDN information. Provides feedback `none`.
`both`	Enables the display of both IP and ISDN information.
`ip-only`	Disables the display of IP information.
`isdn-only`	Enables the display of ISDN information.
`none`	Disables the display of IP and ISDN information.
`get`	Returns the current setting.

Feedback Examples

- `displayipisdninfo yes`
- `displayipisdninfo both`
- `displayipisdninfo ip-only`

displayparams

Outputs a list of system settings.

Syntax

```
displayparams
```

Feedback Examples

```
systemname Jw
hostname Jw
ipaddress 192.168.1.104
wanipaddress 192.168.1.111
version 8.5 - 31Jul2006 14:12
serialnum xxxxx
allowremotemonitoring no
daylightsavings yes
requireacctnumtodial no
validateacctnum no
timediffgmt -12:00
gabserverip <empty>
gabpassword <empty>
displayglobaladdresses no
registerthissystem no
showaddrsingab both
primarycallchoice manual
secondarycallchoice none
preferredalias extension
gatewaynumbertype number+extension
usegatekeeper off
numdigitsdid 7
numdigitsext 4
gatewaycountrycode <empty>
gatewayareacode <empty>
gatewaynumber <empty>
gatekeeperip <empty>
h323name Jw
e164ext 59715
gatewayext 59715
usepathnavigator required
.................
```

dns

Sets or gets the configuration for up to four DNS servers.

Syntax

```
dns get {1..4}
dns set {1..4} "xxx.xxx.xxx.xxx"
```

Parameter	Description
`get`	Returns the current IP address of the specified server. A server identification number `{1..4}` is required.
`{1..4}`	Specifies the server identification number.
`set`	Sets the IP address of the specified DNS server when followed by the "`xxx.xxx.xxx.xxx`" parameter. A server identification number `{1..4}` is required.
"`xxx.xxx.xxx.xxx`"	Specifies the IP address for the specified server.

Feedback Examples

```
dns set 1 192.168.1.111
```

returns

```
dns 1 192.168.1.111
restart system for changes to take effect. restart now? <y,n>
```

Comments

After making a change, you are prompted to restart the system. These values cannot be set if the system is in DHCP client mode.

dsr

Sets or gets the configuration of the DSR serial interface control signal (data set ready). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dsr <get|normal|inverted>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (high voltage is logic 1).
`inverted`	Sets the signal to inverted (low voltage is logic 1).

Feedback Examples

- `dsr normal`
- `dsr inverted`

Comments

The default setting for this signal is "`normal`".

dsranswer

Sets or gets the configuration of the DSR serial interface control signal to indicate an incoming call. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dsranswer <get|on|off>
```

Parameter	Description
`get`	Returns the current setting.
`on`	Turns on the option.
`off`	Turns off the option.

Feedback Examples

- `dsranswer on`
- `dsranswer off`

dtr

Sets or gets the configuration of the DTR serial interface control signal (data terminal ready). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
dtr <get|normal|inverted|on>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (high voltage is logic 1).
`inverted`	Sets the signal to inverted (low voltage is logic 1).
`on`	Sets constant high voltage. If this option is selected, `inverted` is not an option.

Feedback Examples

- `dtr normal`
- `dtr inverted`

Comments

The default setting for the signal is "`normal`".

dualmonitor

Sets or gets whether video is displayed using dual monitor emulation, or split-screen mode, when using one monitor.

Syntax

```
dualmonitor <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables dual monitor emulation.
no	Disables dual monitor emulation.

Feedback Examples

- `dualmonitor no`
- `dualmonitor yes`

dynamicbandwidth

Sets or gets the use of dynamic bandwidth allocation for Quality of Service.

Syntax

```
dynamicbandwidth <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the dynamic bandwidth option.
no	Disables the dynamic bandwidth option.

Feedback Examples

```
dynamicbandwidth yes
```

Comments

The system's dynamic bandwidth function automatically finds the optimum line speed for a call. If you experience excessive packet loss while in a call, the dynamic bandwidth function decrements the line speed until there is no packet loss. This is supported in calls with end points that also support dynamic bandwidth.

e164ext

Sets or gets an H.323 (IP) extension, also known as an E.164 name, needed for inbound calls going through a gateway.

Syntax

```
e164ext get
e164ext set "e.164name"
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the E.164 extension when followed by the "`e.164name`" parameter. To erase the current setting, omit "`e.164name`".
"`e.164name`"	A valid E.164 extension (usually a four-digit number).

Feedback Examples

```
e164ext set
```

returns

```
e164ext <empty>
```

Comments

The extension number is associated with a specific LAN device.

echo

Prints "string" back to the API client screen.

Syntax

```
echo "string"
```

Parameter	Description
"string"	Text to be printed to the screen.

Feedback Examples

```
echo End of abk range results
```

prints

```
End of abk range results
```

to the API client.

Comments

Certain API commands print multiple lines without any delimiter string to notify end of command response. This forces a control panel program to guess when the command's response string is going to end. In those scenarios, control panel can issue the legacy command followed by echo command with a delimiter string of their choosing. Once legacy command's response ends, echo command gets processed which will result in the delimiter string printed to the API client.

This command works with all Polycom HDX systems, and VSX systems running version 8.0 or later.

Command History

Introduced in VSX version 8.0.

echocanceller

Sets or gets the configuration of echo cancellation, which prevents users from hearing their voices loop back from the far site.

Syntax

```
echocanceller <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the echo canceller option.
no	Disables the echo canceller option.

Feedback Examples

- `echocancellerred no`
  `echocancellerwhite no`
- `echocancellerred yes`
  `echocancellerwhite yes`

Comments

This option is enabled by default. Polycom strongly recommends that you do not turn off echo cancellation except when using an external microphone system with its own built-in echo cancellation.

enablefirewalltraversal

Sets or gets the **Enable NAT/Firewall Traversal** setting. This feature requires an Edgewater session border controller that supports H.460.

Syntax

```
enablefirewalltraversal <get|true|false>
```

Parameter	Description
`get`	Returns the current setting.
`true`	Enables the firewall traversal feature.
`false`	Disables the firewall traversal feature.

Feedback Examples

- `enablefirewalltraversal true`
- `enablefirewalltraversal false`

Command History

Introduced in VSX version 8.5.

enablersvp

Sets or gets the RSVP (Resource Reservation Setup Protocol) setting on the system, which requests that routers reserve bandwidth along an IP connection path.

Syntax

```
enablersvp <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the RSVP option.
no	Disables the RSVP option.

Feedback Examples

- `enablersvp no`
- `enablersvp yes`

Comments

This option is enabled by default.

Command History

Introduced in VSX version 8.5.

enablesnmp

Sets or gets the SNMP configuration.

Syntax

```
enablesnmp <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the SNMP option.
no	Disables the SNMP option.

Feedback Examples

- `enablesnmp no`
- `enablesnmp yes`

Comments

Changing this setting causes the system to restart. This option is enabled by default.

encryption

Sets or gets the AES encryption mode for the system.

Syntax

```
encryption <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Use encryption when the far site is capable of encryption.
no	Disables encryption.

Feedback Examples

- `encryption no`
- `encryption yes`

Comments

You cannot use this command while a call is in progress.

The encryption options are only visible on the user interface if an encryption key has been entered.

exit

Ends the API command session.

Syntax

```
exit
```

Comments

This command ends a Telnet session. For serial sessions, this command effectively starts a new session.

farcontrolnearcamera

Sets or gets far control of the near camera, which allows far sites to control the camera on your system.

Syntax

```
farcontrolnearcamera <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Allows the far site to control the near camera if the far site has this capability.
no	Disables far control of the near camera.

Feedback Examples

- `farcontrolnearcamera no`
- `farcontrolnearcamera yes`

farnametimedisplay

Sets or gets the length of time the far-site name is displayed on the system.

Syntax

```
farnametimedisplay off
farnametimedisplay <get|on|15|30|60|120>
```

Parameter	Description
`off`	Disables the far site name display.
`get`	Returns the current setting.
`on`	Displays the far site name for the duration of the call.
`15|30|60|120`	Specifies the number of seconds to display the far site name at the beginning of a call.

Feedback Examples

- `farnametimedisplay on`
- `farnametimedisplay off`
- `farnametimedisplay 60`

flash

Flashes the analog phone call.

Syntax

```
flash ["callid"]
flash ["callid"] ["duration"]
```

Parameter	Description
`callid`	Specifies the callid to flash.
`duration`	Specifies the pulse duration in ms.

Command History

Introduced in VSX version 8.5.

gabk

Returns global directory (address book) entries.

Syntax

```
gabk all
gabk batch {0..59}
gabk batch define “start_no” “stop_no”
gabk batch search “pattern” “count”
gabk letter {a..z}
gabk range “start_no” “stop_no”
gabk refresh
```

Parameter	Description
`all`	Returns all entries in the global directory.
`batch`	Returns a batch of global directory entries in batches (batch size determined by global directory). Requires a batch number, which must be an integer in the range `{0..59}`. Batches should be requested sequentially to ensure receiving a complete list of entries.
`define`	Returns a batch of entries in the range defined by “`start_no`” to “`stop_no`.” Polycom recommends using `gabk range` instead of this command.
`“start_no”`	Specifies the beginning of the range of entries to return.
`“stop_no”`	Specifies the end of the range of entries to return.
`search`	Specifies a batch search.
`“pattern”`	Specifies pattern to match for the batch search.
`“count”`	Specifies the number of entries to list that match the pattern.

`letter`	Returns entries beginning with the letter specified from the range `{a..z}`. Requires one or two alphanumeric characters. Valid characters are:
	`- _ / ; @ , . \`
	`0` through `9`, `a` through `z`

`range`	Returns global directory entries numbered “`start_no`” through “`stop_no`”. Requires two integers.
`refresh`	Gets a more current copy of the global directory.

Feedback Examples

```
gabk all
```

Feedback is similar to feedback returned from the `abk` command on page 4-4, but preceded with `gabk`.

gabpassword

Sets or gets the password to gain access to the Global Directory Server.

Syntax

```
gabpassword get
gabpassword set ["password"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the GDS password to "`password`". To erase the current setting, omit "`password`".
"`password`"	Password to access the GDS server. Valid characters are: a through z (lower and uppercase), `-`, `_`, `@`, `/`, `;`, `,`, `.`, `\`, `0` through `9`. Enclose the string in quotation marks if it includes spaces.

Feedback Examples

- `cannot change password if one is not set` (returned if no password is set)
- `gabpassword set gabpass`
  returns
  `gabpassword gabpass`



This command might not return the current password in correct case-sensitive format.

Comments

This command cannot be used unless a remote access password has been set.

gabserverip

Sets or gets the IP address of the Global Directory Server.

Syntax

```
gabserverip get
gabserverip set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the GDS server's IP address when followed by the parameter "`xxx.xxx.xxx.xxx`". To erase the current setting, omit "`xxx.xxx.xxx.xxx`".
"`xxx.xxx.xxx.xxx`"	IP address of the GDS server. Can be a numeric or character string.

Feedback Examples

- `gabserverip <empty>`
- `gabserverip set gab.polycom.com`
  returns
  `gabserverip gab.polycom.com`

gatekeeperip

Sets or gets the IP address of the gatekeeper.

Syntax

```
gatekeeperip get
gatekeeperip set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gatekeeper IP address when followed by the "xxx.xxx.xxx.xxx" parameter. To erase the current setting, omit "xxx.xxx.xxx.xxx".
"xxx.xxx.xxx.xxx"	IP address of the gatekeeper.

Feedback Examples

```
gatekeeperip set 192.168.1.1
```

returns

```
gatekeeperip 192.168.1.1
```

gatewayareacode

Sets or gets the gateway area code.

Syntax

```
gatewayareacode get
gatewayareacode set [“areacode”]
```

Parameter	Description
`get`	Returns the area code for the gateway.
`set`	Sets the area code when followed by the `“areacode”` parameter. To erase the current setting, omit `“areacode”`.
`“areacode”`	Numeric string specifying the area code.

Feedback Examples

- `gatewayareacode <empty>`
- `gatewayareacode set 512`
  returns
  `gatewayareacode 512`

gatewaycountrycode

Sets or gets the gateway country code.

Syntax

```
gatewaycountrycode get
gatewaycountrycode set ["countrycode"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gateway country code when followed by the "`countrycode`" parameter. To erase the current setting, omit "`countrycode`".
"`countrycode`"	Numeric string specifying the gateway country code.

Feedback Examples

```
gatewaycountrycode set 1
```

returns

```
gatewaycountrycode 1
```

gatewayext

Sets or gets the gateway extension number.

Syntax

```
gatewayext get
gatewayext set [“extension”]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gateway extension number when followed by the `“extension”` parameter. To reset the default value, omit `“extension”`.
`“extension”`	Numeric string specifying the gateway extension.

Feedback Examples

```
gatewayext set 59715
```

returns

```
gatewayext 59715
```

gatewaynumber

Sets or gets the gateway number.

Syntax

```
gatewaynumber get
gatewaynumber set [“number”]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the gateway number when followed by the `“number”` parameter. To erase the current setting, omit `“number”`.
`“number”`	Numeric string specifying the gateway number.

Feedback Examples

```
gatewaynumber set 5551212
```

returns

```
gatewaynumber 5551212
```

gatewaynumbertype

Sets or gets the Gateway Number Type, which can be either Direct Inward Dial (DID) or Number+Extension.

Syntax

```
gatewaynumbertype <get|did|number+extension>
```

Parameter	Description
`get`	Returns the current setting.
`did`	Indicates that the gateway number is a direct inward dial number; it has no extension.
`number+extension`	Indicates that the gateway number includes an extension. This option allows the call to go through directly (it dials the Gateway Number + ## + Extension as one number).

Feedback Examples

- `gatewaynumbertype number_plus_extension`
- `gatewaynumbertype direct_inward_dial`

gendial

Generates DTMF dialing tones over a video call.

Syntax

```
gendial <{0..9}|#|*>
```

Parameter	Description
{0..9}	Generates the DTMF tone corresponding to telephone buttons 0-9.
#	Generates the DTMF tone corresponding to a telephone # button.
*	Generates the DTMF tone corresponding to a telephone * button.

Feedback Examples

```
gendial 2
```

returns

```
gendial 2
```

and the system produces the DTMF tone corresponding to a telephone's 2 button.

See Also

To generate DTMF tones over a POTS line, use the `gendialtonepots (deprecated)` command on page 4-95.

gendialtonepots (deprecated)

Generates DTMF dialing tones over an analog phone line. This command has been deprecated. Polycom recommends using the `gendial` command on page 4-94.

Syntax

```
gendialtonepots <{0..9}|#|*>
```

Parameter	Description
`{0..9}`	Generates the DTMF tone corresponding to telephone buttons 0-9.
`#`	Generates the DTMF tone corresponding to a telephone # button.
`*`	Generates the DTMF tone corresponding to a telephone * button.

Feedback Examples

```
gendialtonepots 2
```

returns

```
gendialtonepots 2
```

and the system produces the DTMF tone corresponding to a telephone's 2 button.

Command History

Deprecated in Polycom HDX version 1.0.

See Also

To generate DTMF tones over video, use the `gendial` command on page 4-94.

generatetone

Turns the test tone on or off. The tone is used to check the monitor audio cable connections or to monitor the volume level.

Syntax

```
generatetone <on|off>
```

Parameter	Description
on	Turns on the test tone.
off	Turns off the test tone.

Feedback Examples

```
generatetone on
```

returns

```
generatetone on
```

and the system produces a test tone.

get screen

Returns the name of the current screen so that the control panel programmer knows which screen the user interface is currently displaying.

Syntax

```
get screen
```

Feedback Examples

- `screen: near`
- `screen: makeacall`
- `screen: generatetone`

See Also

You can also use the `screen` command on page 4-202.

getcallstate (deprecated)

Gets the state of the calls in the current conference. This command has been deprecated. Polycom recommends using the `callinfo` command on page 4-29.

Syntax

```
getcallstate
```

Feedback Examples

```
cs: call[33] speed[512] dialstr[216.54.150.82] state[connected]
cs: call[1] inactive
cs: call[2] inactive
```

See Also

To register the shell session to receive notifications about call state activities, see the `callstate` command on page 4-30.

gmscity

Sets or gets the Global Management System™ city information.

Syntax

```
gmscity get
gmscity set [“city”]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the Global Management System city name when followed by the `“city”` parameter. To erase the current setting, omit `“city”`.
`“city”`	Character string specifying the city. Enclose the string in quotation marks if it includes spaces. Example: `“San Antonio”`

Feedback Examples

- `gmscity <empty>`
- `gmscity set Paris`
  returns
  `gmscity Paris`

gmscontactemail

Sets or gets the Global Management System contact E-mail information.

Syntax

```
gmscontactemail get
gmscontactemail set [“email”]
```

Parameter	Description
`get`	Returns the current contact E-mail address.
`set`	Sets the Global Management system contact E-mail address when followed by the `“email”` parameter. To erase the current setting, omit `“email”`.
`“email”`	Alphanumeric string specifying the E-mail address.

Feedback Examples

- `gmscontactemail <empty>`
- `gmscontactemail set gms_manager@mycompany.com`
  returns
  `gmscontactemail gms_manager@mycompany.com`

gmscontactfax

Sets or gets the Global Management System contact fax information

Syntax

```
gmscontactfax get
gmscontactfax set [“fax number”]
```

Parameter	Description
`get`	Returns the current contact fax information.
`set`	Sets the Global Management System contact fax information when followed by the `“fax number”` parameter. To erase the current setting, omit `“fax number”`.
`“fax number”`	Character string specifying the fax number. Enclose the string in quotation marks if it includes spaces. Example: `“512 555 1212”`

Feedback Examples

- `gmscontactfax <empty>`
- `gmscontactfax set ”512 555 1212”`
  returns
  `gmscontactfax ”512 555 1212”`

gmscontactnumber

Sets or gets the Global Management System contact number information.

Syntax

```
gmscontactnumber get
gmscontactnumber set [“number”]
```

Parameter	Description
`get`	Returns the current contact number.
`set`	Sets the Global Management System contact number when followed by the `“number”` parameter. To erase the current setting, omit `“number”`.
`“number”`	Numeric string specifying the contact number. Enclose the string in quotation marks if it includes spaces. Example: `“512 555 1212”`

Feedback Examples

- `gmscontactnumber <empty>`
- `gmscontactnumber set ”512 555 1212”`
  returns
  `gmscontactnumber ”512 555 1212”`

gmscontactperson

Sets or gets the Global Management System contact person information.

Syntax

```
gmscontactperson get
gmscontactperson set [“person”]
```

Parameter	Description
`get`	Returns the current contact person information.
`set`	Sets the Global Management System contact person name when followed by the `“person”` parameter. To erase the current setting, omit `“person”`.
`“person”`	Character string specifying the contact person. Enclose the string in quotation marks if it includes spaces. Example: `“John Doe”`

Feedback Examples

- `gmscontactperson <empty>`
- `gmscontactperson set ”John GMSadmin”`
  returns
  `gmscontactperson ”John GMSadmin”`

gmscountry

Sets or gets the Global Management System country information.

Syntax

```
gmscountry get
gmscountry set [“countryname”]
```

Parameter	Description
`get`	Returns the current country setting.
`set`	Sets the Global Management System country information when followed by the `“countryname”` parameter. To erase the current setting, omit `“countryname”`.
`“countryname”`	Character string specifying the country. Enclose the string in quotation marks if it includes spaces. Example: `“united states”`

Feedback Examples

- `gmscountry <empty>`
- `gmscountry set Argentina`
  returns
  `gmscountry Argentina`

gmsstate

Sets or gets the Global Management System state information.

Syntax

```
gmsstate get
gmsstate set [“state”]
```

Parameter	Description
`get`	Returns the current state information.
`set`	Sets the Global Management System state information when followed by the `“state”` parameter. To erase the current setting, omit the `“state”` parameter.
`“state”`	Character string specifying the state information. Enclose the string in quotation marks if it includes spaces. Example: `“West Virginia”`

Feedback Examples

- `gmsstate <empty>`
- `gmsstate set Texas`
  returns
  `gmsstate Texas`

gmstechsupport

Sets or gets the Global Management System technical support phone number.

Syntax

```
gmstechsupport get
gmstechsupport set [“tech_support_digits”]
```

Parameter	Description
`get`	Returns the current tech support phone number information.
`set`	Sets the technical support information when followed by the `“tech_support_digits”` parameter. To erase the current setting, omit `“tech_support_digits”`.
`“tech_support_digits”`	Numeric string specifying the tech support phone number. Enclose the string in quotation marks if it includes spaces. Example: `“512 555 1212”`

Feedback Examples

- `gmstechsupport <empty>`
- `gmstechsupport set ”123 456 7890”`
  returns
  `gmstechsupport 1234567890`

gmsurl

Sets or gets the URL of the Global Management System server that manages your system. This command automatically appends "/pwx/vs_status.asp".

Syntax

```
gmsurl get {1..10}
gmsurl set {1..10} "xxx.xxx.xxx.xxx"
gmsurl get all
```

Parameter	Description
get	Returns the current URL information for a selected server. A server must be specified.
{1..10}	Global Management System server number. The primary Global Management System server that performs account validation is always server 1.
set	Sets the current URL information for a selected server. A server must be specified.
all	Returns information for all Global Management System servers.

Feedback Examples

```
gmsurl 1 192.168.1.123/pwx/nx_status.asp
```

Comments

When you are registered with the Global Management System, this information is automatically configured.

h239enable

Sets or gets the H.239 People+Content™ setting.

Syntax

```
h239enable get
h239enable <yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables H.239 People+Content on the system.
no	Disables H.239 People+Content on the system.

Feedback Examples

- `h239enable yes`
- `h239enable no`

Command History

Introduced in VSX version 8.5.

h323name

Sets or gets the system's H.323 name.

Syntax

```
h323name get
h323name set ["H.323name"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the H.323 name when followed by the `"H.323name"` parameter. To erase this setting, omit the `"H.323name"` parameter.
`"H.323name"`	Character string specifying the H.323 name. Use quotation marks around strings that contain spaces. For example: `"Pacific Room"`

Feedback Examples

- `h323name My`
- `h323name set "Pacific Room"`
  returns
  `h323name "Pacific Room"`

h331audiomode

Set or gets the audio protocol sent during H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331audiomode
  <get|g729|g728|g711u|g711a|g722-56|g722-48|g7221-16|g7221-24|
  g7221-32|siren14|siren14stereo|off>
```

Parameter	Description
`get`	Returns the current setting.

`g729|g728|g711u|`
`g711a|g722-56|`
`g722-48|g7221-16|`
`g7221-24|g7221-32|`
`siren14|`
`siren14stereo`
	Sets the audio protocol to this value for H.331 calls.

`off`	Turns audio mode off for H.331 calls.

Feedback Examples

- `h331audiomode g.728`
- `h331audiomode g.711u`
- `h331audiomode g.722-56`
- `h331audiomode “siren 14”`
- `h331audiomode “siren 14 stereo”`
- `h331audiomode off`

Comments

This value cannot be changed during a call.

Command History

Introduced in VSX version 7.5.

h331dualstream

Set or gets the dual stream setting used for H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331dualstream <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Turns on dual stream for H.331 calls.
off	Turns off dual stream for H.331 calls.

Feedback Examples

- `h331dualstream yes`
- `h331dualstream no`

Comments

This value cannot be changed during a call.

Command History

Introduced in VSX version 7.5.

h331framerate

Sets or gets the frame rate sent during H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331framerate <get|30|15|10|7.5>
```

Parameter	Description
`get`	Returns the current setting.
`30|15|10|7.5`	Sets the frame rate to this value for H.331 calls.

Feedback Examples

- `h331framerate 15`
- `h331framerate 30`

Comments

This value cannot be changed during a call.

Command History

Introduced in VSX version 7.5.

h331videoformat

Sets or gets the video format for H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331videoformat <get|fcif>
```

Parameter	Description
get	Returns the current setting.
fcif	Sets the video format to FCIF for H.331 calls.

Feedback Examples

```
h331videoformat fcif
```

Command History

Introduced in VSX version 7.5.

h331videoprotocol

Sets or gets the H.331 video protocol sent during H.331 calls. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
h331videoprotocol <get|h264|h263+|h263|h261>
```

Parameter	Description
`get`	Returns the current setting.
`h264|h263+|h263|h261`	Sets the video protocol to this value for H.331 calls.

Feedback Examples

- `h331videoprotocol h.264`
- `h331videoprotocol h.263+`
- `h331videoprotocol h.261`

Comments

This value cannot be changed during a call.

Command History

Introduced in VSX version 7.5.

hangup

Hangs up the current video or phone call.

Syntax

```
hangup phone
hangup video [“callid”]
hangup all
```

Parameter	Description
`phone`	Disconnects the current analog phone (audio-only) site.
`video`	Disconnects the current video call. If the “`callid`” parameter is omitted, the system disconnects all video far sites in the call.
`all`	Disconnects all video and audio sites in the call.

Feedback Examples

```
hangup video 2
```

returns

```
hanging up video call
cleared: call[xx]
dialstring[comm port: dialstr] NAME:system name]
ended: call[xx]
```

and disconnects the specified site, leaving other sites connected

Comments

After sending the `hangup` command, feedback that the call has ended can take up to 15 seconds.

help

Returns a simple or detailed list of commands when used with the parameters all, help, string, or syntax. Also switches help display mode when used with the parameters verbose or terse. This command without parameters returns the list of command names only.

Syntax

```
help [all|help|"string"]
help [verbose|terse|syntax]
help apropos "string"
```

Parameter	Description
`all`	Describes the various types of help described in this section.
`help`	Returns help for using the `help` command.
`"string"`	Returns detailed help for any commands beginning with `"string"`. Use quotation marks around strings that contain spaces. For example: `"display call"`
`verbose`	Selects verbose mode, which shows syntax and help for commands.
`terse`	Selects terse mode, which shows help for commands without showing syntax.
`syntax`	Returns the help syntax conventions.
`apropos`	Returns help on any command or command description containing `"string"`.

Feedback Examples

- `help terse`
  returns
  `current help mode is: terse`
- `help dualmonitor`
  returns
  `dualmonitor <yes|no|get>`
  `-Set/get dual monitor emulation.`

history

Lists the last commands used in the current session.

Syntax

```
history
```

Feedback Examples

```
1 ipaddress set 192.168.1.105
2 hostname set My
3 lanport 100fdx
4 callstate register
5 lanport get
6 history
```

Comments

If more than 64 commands have been issued, only the last 64 are displayed, with the most recent always at the bottom.

homecallquality

Sets or gets whether users are allowed to select the bandwidth for calls from the home screen.

Syntax

```
homecallquality <get|yes|no>
```

Parameter	Description
`get`	Returns the current setting.
`yes`	Displays the **Call Quality** menu on the home screen.
`no`	Removes the **Call Quality** menu from the home screen.

Feedback Examples

- `homecallquality no`
- `homecallquality yes`

homemultipoint

Sets or gets whether users are allowed to access the multipoint dialing screen via a **Multipoint** button on the home screen.

Syntax

```
homemultipoint <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the **Multipoint** button on the home screen.
no	Removes the **Multipoint** button from the home screen.

Feedback Examples

- `homemultipoint no`
- `homemultipoint yes`

Comments

This option is only available if multipoint calling is enabled.

homerecentcalls

Sets or gets whether users are allowed to access a list of recent calls made with the system by displaying the **Recent Calls** button on the home screen.

Syntax

```
homerecentcalls <get|yes|no>
```

Parameter	Description
`get`	Returns the current setting.
`yes`	Displays the **Recent Calls** button on the home screen.
`no`	Removes the **Recent Calls** button from the home screen.

Feedback Examples

`homerecentcalls get`
returns

- `homerecentcalls no`
- `homerecentcalls yes`

Comments

This option is only available if the Call Detail Report option is enabled.

homesystem

Sets or gets whether users are allowed to access the system screen by displaying the **System** button on the home screen.

Syntax

```
homesystem <get|yes|no>
```

Parameter	Description
`get`	Returns the current setting.
`yes`	Displays the **System** button on the home screen.
`no`	Removes the **System** button from the home screen.

Feedback Examples

- `homesystem no`
- `homesystem yes`

homesystemname

Sets or gets whether to display the name of the system on the home screen, above the PIP window.

Syntax

```
homesystemname <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the system name on the home screen.
no	Removes the system name from the home screen.

Feedback Examples

- `homesystemname no`
- `homesystemname yes`

hostname

Sets or gets the LAN host name, which is assigned to the system for TCP/IP configuration and can be used in place of an IP address when dialing IP calls.

Syntax

```
hostname get
hostname set [“hostname”]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the system’s LAN host name when followed by the `“hostname”` parameter. If `“hostname”` is omitted, the system automatically sets it to `Admin`.
`“hostname”`	Character string specifying the LAN host name of the system. The LAN host name follows these format rules: Starts with a letter (A-a to Z-z). It is not case sensitive. Ends with a letter (A-a to Z-z) or a number (0 to 9). May include letters, numbers, and a hyphen. May not be longer than 63 characters. **Note:** The LAN host name is initialized during the out-of-box setup sequence. The LAN host name is the same as the system name, if the system name conforms to the rules above. If the system name does not conform to these rules, the invalid characters are removed from the system name. If the resulting string is empty, the default LAN host name is Admin.

Feedback Examples

- `hostname set`
  returns
  ```
  hostname ADMIN
  restart system for changes to take effect. restart now? <y,n>
  ```
- `hostname set “My”`
  returns
  ```
  hostname My
  restart system for changes to take effect. restart now? <y,n>
  ```

Comments

A LAN host name is required; it cannot be deleted or left blank. After making a change, you are prompted to restart the system.

ipaddress

Sets or gets the LAN IP address of the system.

Syntax

```
ipaddress get
ipaddress set "xxx.xxx.xxx.xxx"
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the LAN IP address to the "xxx.xxx.xxx.xxx" parameter. This setting can only be changed when DHCP is off.
"xxx.xxx.xxx.xxx"	IP address of the system.

Feedback Examples

```
ipaddress 192.168.1.111
restart system for changes to take effect. restart now? <y,n>
```

Comments

Use this command when you need to allocate a static IP address to your system. After making a change, you are prompted to restart the system.

ipdialspeed

Sets or gets the valid IP dialing speed, and enables or disables the specified speed.

Syntax

```
ipdialspeed get “valid speed”
ipdialspeed set “valid speed” <on|off>
```

Parameter	Description
`get`	Returns the current setting. The parameter `“valid speed”` is required.
`“valid speed”`	Valid speeds are: 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 33 6, 384, 392, 7x64, 8x56, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 16x56, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 24x56, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 1736, 32x56, 28x64, 1848, 1856, 1904, and 1920 kbps.
`set`	Sets the IP dialing speed. The parameters `“valid speed”` and on or off are required.
`on`	Enables the specified speed.
`off`	Disables the specified speed.

Feedback Examples

```
ipdialspeed get 168
```

returns

```
ipdialspeed 168 off (if the specified speed is disabled)
ipdialspeed 168 on (if the specified speed is enabled)
```

ipisdninfo

Sets or gets whether the home screen displays IP information, ISDN information, both, or neither.

Syntax

```
ipisdninfo <get|both|ip-only|isdn-only|none>
```

Parameter	Description
`get`	Returns the current setting.
`both`	Displays IP and ISDN information on the home screen.
`ip-only`	Displays only IP information on the home screen.
`isdn-only`	Displays only ISDN information on the home screen.
`none`	Does not display any IP or ISDN information on the home screen.

Feedback Examples

- `ipisdninfo ip-only`
- `ipisdninfo both`
- `ipisdninfo none`

ipprecaudio, ipprecfecc, ipprecvideo

Sets or gets the IP Precedence priority level (Type of Service Value) for audio, far-end camera control (FECC), and video. The value for each can be between 0 and 7.

Syntax

```
ipprecaudio get
ipprecaudio set {0..7}
ipprecfecc get
ipprecfecc set {0..7}
ipprecvideo get
ipprecvideo set {0..7}
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the IP precedence. A priority level is required. This must be an integer in the range `{0..7}`.

Feedback Examples

- `ipprecaudio 5`
- `type of service diffserv` (returned if `typeofservice` is not set to `ipprecedence`)

Comments

If `typeofservice` is set to `diffserv`, these commands are not applicable.

ipstat

Returns the LAN host name, WINS resolution, DHCP, IP address, DNS servers 1-4, default gateway, WINS server, and subnet mask.

Syntax

```
ipstat
```

Feedback Examples

```
hostname My7000
winsresolution no
dhcp client
ipaddress 192.168.1.111
dnsserver 192.168.1.2
dnsserver1 192.168.1.3
dnsserver2 192.168.1.4
dnsserver3 0.0.0.0
defaultgateway 192.168.1.5
subnetmask 255.255.255.0
winsserver 192.168.1.6
lanport auto
```

isdnareacode

Sets or gets the ISDN area code or STD code associated with the area where the system is used. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdnareacode get
isdnareacode set ["area code"]
```

Parameter	Description
`get`	Returns the area code information.
`set`	Sets the ISDN area code when followed by the `"area code"` parameter. To erase the current setting, omit `"area code"`.
`"area code"`	Numeric value.

Feedback Examples

```
isdnareacode set 512
```

returns

```
isdnareacode 512
```

Comments

This screen is only accessible if you have a Quad BRI network interface connected to your system.

isdncountrycode

Sets or gets the ISDN country code associated with the country where the system is used. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdncountrycode get
isdncountrycode set [“country code”]
```

Parameter	Description
`get`	Returns the country code information.
`set`	Sets the ISDN country code when followed by the `“country code”` parameter. To erase the current setting, omit `“country code”`.
`“country code”`	The ISDN country code.

Feedback Examples

```
isdncountrycode set 1
```

returns

```
isdncountrycode 1
```

Comments

The system is generally able to automatically determine the country code based on the country you selected during initial system setup.

See Also

This command has the same function as the `telecountrycode` command on page 4-224.

isdndialingprefix

Sets or gets the ISDN dialing prefix used to access an outside line if the system is behind a PBX. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdndialingprefix get
isdndialingprefix set [“isdn prefix”]
```

Parameter	Description
`get`	Returns the dialing prefix.
`set`	Sets the ISDN prefix when followed by the `“isdn prefix”` parameter. To erase the current setting, omit `“isdn prefix”`.
`“isdn prefix”`	The digit(s) that must be dialed to reach an outside line.

Feedback Examples

```
isdndialingprefix set 9
```

returns

```
isdndialingprefix 9
```

isdndialspeed

Sets or gets the valid dialing speed of the ISDN network interface. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdndialspeed get "valid speed"
isdndialspeed set "valid speed" <on|off>
```

Parameter	Description
`get`	Returns the current setting. The parameter "`valid speed`" is required.
`set`	Sets the ISDN dialing speed. The parameters "`valid speed`" and on or off are required.
"`valid speed`"	Valid speeds are: 56, 2x56, 112, 168, 224, 280, 336, 392, 64, 8x56, 2x64, 128, 192, 256, 320, 384, 7x64, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 28x64, 1856, and 1920 kbps. **Note:** The highest speed for BRI systems is 512 kbps, the highest speed for T1 systems is 1472 kbps, and the highest speed for E1 systems is 1920 kbps.
`on`	Enables the specified speed.
`off`	Disables the specified speed.

Feedback Examples

```
isdndialspeed set 256 on
```

returns

```
isdndialspeed 256 on
```

isdnnum

Sets or gets the ISDN video number or numbers assigned to the system. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdnnum get <1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2>
isdnnum set <1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2> [“number”]
```

Parameter	Description
`get`	Returns the current ISDN number associated with the specified B channel.
`set`	Sets the ISDN number for a B channel line when followed by the `“number”` parameter. To erase the current setting, omit `“number”`.
`1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2`	The line and B channel. Valid values are: `1b1` BRI line 1, B channel 1 `1b2` BRI line 1, B channel 2 `2b1` BRI line 2, B channel 1 `2b2` BRI line 2, B channel 2 `3b1` BRI line 3, B channel 1 `3b2` BRI line 3, B channel 2 `4b1` BRI line 4, B channel 1 `4b2` BRI line 4, B channel 2
`“number”`	The ISDN number(s) provided by your network service provider for the specified B channel.

Feedback Examples

```
isdnnum set 1b1 5125551212
```

returns

```
isdnnum 1b1 5125551212
```

isdnswitch

Sets or gets the ISDN switch protocol. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
isdnswitch get
isdnswitch <pt-to-pt_at&t_5_ess|multipoint_at&t_5_ess|ni-1>
isdnswitch <nortel_dms-100|standard_etsi_euro-isdn|ts-031|ntt_ins-64>
```

Parameter	Description
`get`	Returns the current switch protocol.
`pt-to-pt_at&t_5_ess| multipoint_at&t_5_ess| ni-1|nortel_dms-100| standard_etsi_euro-isdn |ts-031|ntt_ins-64`	Specifies the ISDN switch protocol to use.

Feedback Examples

- `isdnswitch pt-to-pt_at&t_5_ess`
- `isdnswitch multipoint_at&t_5_ess`
- `isdnswitch ni-1`
- `isdnswitch nortel_dms-100`
- `isdnswitch standard_etsi_euro-isdn`
- `isdnswitch ts-031`
- `isdnswitch ntt_ins-64`

Comments

If more than one switch protocol is supported, you must find out from your telephone service provider which protocol to select. If you change the country settings, a new set of ISDN switch protocols is loaded.

See Also

To set the switch type for PRI systems, use the `priswitch` command on page 4-185.

keypadaudioconf

Sets or gets the keypad audio confirmation. When this option is enabled, an audio response is echoed when a numeric key is pressed on the remote control.

Syntax

```
keypadaudioconf <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables audio confirmation.
no	Disables audio confirmation.

Feedback Examples

- `keypadaudioconf no`
- `keypadaudioconf yes`

language

Sets or gets the language that will display on the system.

Syntax

```
language <set|get>
language set <chinese|englishuk|englishus|french|german|
 hungarian|italian|japanese|korean|norwegian|polish|portuguese|
 russian|spanish|traditional_chinese>
```

Parameter	Description
`get`	Returns the current language used on the system.
`set`	Sets the specified language. Requires a language parameter.

Feedback Examples

```
language set german
```

returns

```
language german
```

lanport

Sets or gets the LAN port settings of the system.

Syntax

```
lanport <get|auto|autohdx|autofdx|10|10hdx|10fdx|100|100hdx|100fdx>
```

Parameter	Description
`get`	Returns the current setting.
`auto|autohdx|autofdx|10|10hdx|10fdx|100|100hdx|100fdx`	Sets the LAN speed and duplex mode. `auto`: Automatically negotiates the LAN speed and duplex mode. `autohdx`: Automatically negotiates the LAN speed but specifies half-duplex mode. `autofdx`: Automatically negotiates the LAN speed but specifies full-duplex mode. `10`: 10 Mbps, auto duplex `10hdx`: 10 Mbps, half duplex `10fdx`: 10 Mbps, full duplex `100`: 100 Mbps, auto duplex `100hdx`: 100 Mbps, half duplex `100fdx`: 100 Mbps, full duplex

Feedback Examples

```
lanport auto
restart system for changes to take effect. restart now? <y,n>
```

Comments

After making a change, you are prompted to restart the system.

linestate

Sets or gets API session registration to receive notifications about IP or ISDN line state changes.

Syntax

```
linestate get
linestate <register|unregister>
```

Parameter	Description
`get`	Returns the current setting.
`register`	Registers to receive notification when IP or ISDN line states change.
`unregister`	Unregisters to receive notification when IP or ISDN line states change.

Feedback Examples

Key off of "`linestate`:"

- `linestate registered`
- `linestate unregistered`

Comments

IP line state changes are only received in a serial API session.

listen

Registers the RS-232 session to listen for incoming video calls, phone calls, or system sleep or awake state and, consequently, to give notification when the registered state occurs.

Syntax

```
listen <video|phone|sleep>
```

Parameter	Description
`video`	Instructs the session to listen for incoming video calls. When this event occurs, the message "`listen video ringing`" is received.
`phone`	Instructs the session to listen for incoming phone calls. When this event occurs, the message "`listen phone ringing`" is received.
`sleep`	Instructs the session to listen for when the system goes into sleep mode. When this event occurs, the message "`listen going to sleep`" is received. When the system wakes up, the message "`listen waking up`" is received. Deprecated. Polycom recommends using `sleep register` instead of this command.

Feedback Examples

Key off of "`listen:`"

```
listen sleep
```

returns

```
listen sleep registered
```

to acknowledge that the session is now registered to listen for sleep mode.

```
listen going to sleep
```

is notification that the system is going to sleep mode.

```
listen waking up
```

is notification that the system is waking up.

localdatetime

Sets or gets whether to display the local date and time on the home screen.

Syntax

```
localdatetime <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Displays the local date and time on the home screen.
no	Removes the local date and time from the home screen.

Feedback Examples

- `localdatetime no`
- `localdatetime yes`

marqueedisplaytext

Sets or gets the text to display in the dialing entry field on the Place a Call screen.

Syntax

```
marqueedisplaytext get
marqueedisplaytext set “text”
```

Parameter	Description
`get`	Returns the current marquee display text.
`set`	Sets the text to display in the dialing entry field followed by the text to use. Enclose the string in quotation marks if it includes spaces.
`“text”`	Text to display. Enclose the character string in quotation marks if it includes spaces. If `“text”` is omitted, the system automatically sets it to `Welcome`.

Feedback Examples

- `marqueedisplaytext <empty>`
- `marqueedisplaytext set “select an entry from the directory”` returns
  `marqueedisplaytext “select an entry from the directory”`

Comments

This command has an effect only when the dialingdisplay is set to display a marquee.

See Also

The dialing display is specified by the `dialingdisplay` command on page 4-58.

maxgabinternationalcallspeed

Sets or gets the maximum speed for international ISDN calls made from the global directory. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
maxgabinternationalcallspeed get
maxgabinternationalcallspeed set "valid speed"
```

Parameter	Description
`get`	Returns the current valid speed.
`set`	Sets the maximum speed for international calls when followed by a valid speed value.
`"valid speed"`	Valid speeds are: 2x64, 128, 256, 384, 512, 768, 1024, and 1472 kbps.

Feedback Examples

```
maxgabinternationalcallspeed set 512
```

returns

```
maxgabinternationalcallspeed 512
```

maxgabinternetcallspeed

Sets or gets the maximum speed for Internet (IP/H.323) calls made from the global directory.

Syntax

```
maxgabinternetcallspeed get
maxgabinternetcallspeed set “valid speed”
```

Parameter	Description
`get`	Returns the current valid speed.
`set`	Sets the maximum speed for Internet calls when followed by a valid speed value.
`“valid speed”`	Valid speeds are: 128, 256, 384, 512, 768, 1024, and 1472 kbps.

Feedback Examples

```
maxgabinternetcallspeed set 384
```

returns

```
maxgabinternetcallspeed 384
```

maxgabisdncallspeed

Sets or gets the maximum speed for ISDN (H.320) calls made from the global directory. This command is only applicable if you have an ISDN network interface connected to your system.

Syntax

```
maxgabisdncallspeed get
maxgabisdncallspeed set "valid speed"
```

Parameter	Description
`get`	Returns the current valid speed.
`set`	Sets the maximum speed for ISDN calls when followed by a valid speed value.
`"valid speed"`	Valid speeds are: 56, 64, 128, 256, 384, 512, 768, 1024, and 1472 kbps.

Feedback Examples

```
maxgabisdncallspeed set 384
```

returns

```
maxgabisdncallspeed 384
```

maxtimeincall

Sets or gets the maximum number of minutes allowed for call length.

Syntax

```
maxtimeincall get
maxtimeincall set [{0..999}]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the maximum time for calls when followed by a parameter from `{0..999}`. To erase the current setting, omit the time parameter or set it to `0`. The call will then stay up indefinitely.
`{0..999}`	Maximum call time in minutes. Must be an integer in the range `{0..999}`.

Feedback Examples

- `maxtimeincall set 180`
  returns
  `maxtimeincall 180`
- `maxtimeincall <empty>`

Comments

When the time has expired in a call, a message asks you if you want to hang up or stay in the call. If you do not answer within one minute, the call automatically disconnects.

mcupassword

Enters and sends the MCU password to the MCU.

Syntax

```
mcupassword ["password"]
```

Parameter	Description
password	Specifies the password to send to the MCU.

meetingpassword

Sets or gets the meeting password.

Syntax

```
meetingpassword get
meetingpassword set [“password”]
```

Parameter	Description
`get`	Returns the current meeting password.
`set`	Sets the meeting password if followed by the password parameter. To erase the current setting, omit the password parameter.
`“password”`	User-defined password. Valid characters are: `A` through `Z` (lower and uppercase), `-`, `_`, `@`, `/`, `;`, `,`, `.`, `\`, and `0` through `9`. The length is limited to 10 characters. The password cannot include spaces.

Feedback Examples

- `meetingpassword <empty>`
- `meetingpassword set passwd`
  returns
  `meetingpassword passwd`

monitor1 (deprecated)

Sets or gets the aspect ratio for Monitor 1. With the implementation of the `configdisplay` command on page 4-42, this command has been deprecated.

Syntax

```
monitor1 <get|4:3|16:9|vga>
```

Parameter	Description
`get`	Returns the current setting.
`4:3|16:9`	Sets the display aspect ratio to 4:3 (standard) or 16:9 (wide screen).
`vga`	Sets the display to VGA and causes the system to restart.

Feedback Examples

```
monitor1 4:3
monitor1 16:9
```

Command History

Deprecated in VSX version 8.5.

See Also

See the `configdisplay` command on page 4-42.

monitor1screensaverouput

Sets or gets whether to send either black video or "No Signal" to Monitor 1 when the screen saver activates.

Syntax

```
monitor1screensaveroutput <get|black|no_signal>
```

Parameter	Description
`get`	Returns the current setting.
`black`	Sends black video to Monitor 1 when the system goes to sleep and the screen saver activates.
`no_signal`	Sends no signal to Monitor 1 when the system goes to sleep and the screen saver activates.

Feedback Examples

The command

```
monitor1screensaverouput black
```

returns

```
monitor1screensaverouput black
```

The command

```
monitor1screensaverouput get
```

returns

```
monitor1screensaverouput black
```

Command History

Introduced in VSX version 8.5.

See Also

See the `monitor2screensaverouput` command on page 4-151.

monitor2 (deprecated)

Sets or gets the aspect ratio for Monitor 2. With the implementation of the `configdisplay` command on page 4-42, this command has been deprecated.

Syntax

```
monitor2 off
monitor2 <get|4:3|16:9>
monitor2 vga
```

Parameter	Description
`off`	Disables the second monitor output.
`get`	Returns the current setting.
`4:3|16:9`	Sets the aspect ratio to 4:3 (standard) or 16:9 (wide screen).
`vga`	Sets the display to VGA.

Feedback Examples

- `monitor2 off`
- `monitor2 4:3 vga`

Command History

Deprecated in VSX version 8.5.

See Also

See the `configdisplay` command on page 4-42.

monitor2screensaverouput

Sets or gets whether to send either black video or "No Signal" to Monitor 2 when the screen saver activates.

Syntax

```
monitor2screensaveroutput <get|black|no_signal>
```

Parameter	Description
black	Sends black video to Monitor 2 when the system goes to sleep and the screen saver activates.
no_signal	Sends no signal to Monitor 2 when the system goes to sleep and the screen saver activates.
get	Returns the current setting.

Feedback Examples

The command

```
monitor2screensaverouput black
```

returns

```
monitor2screensaverouput black
```

The command

```
monitor2screensaverouput get
```

returns

```
monitor2screensaverouput black
```

Command History

Introduced in VSX version 8.5.

See Also

See the monitor1screensaverouput command on page 4-149.

mpautoanswer

Sets or gets the Auto Answer Multipoint Video mode, which determines how the system will handle an incoming call in a multipoint video conference.

Syntax

```
mpautoanswer <get|yes|no|donotdisturb>
```

Parameter	Description
`get`	Returns the current setting.
`yes`	Connects incoming video calls automatically. The screen will split into a multipoint call progress screen as the incoming call is answered.
`no`	For an incoming video call, the user will be notified and given the choice to answer the call. If the user selects Yes, the call is added to the ongoing conference. If the user selects No, the call is rejected. The default is No.
`donotdisturb`	The user is not notified of incoming video calls. The sites that placed the calls receive a Far Site Busy (H.320) or Call Rejected (H.323) code.

Feedback Examples

- `mpautoanswer donotdisturb`
- `mpautoanswer no`
- `mpautoanswer yes`

Comments

If `mpautoanswer` is set to `no` or `donotdisturb`, you must rely on API session notifications to answer inbound calls.

mpmode

Sets or gets the multipoint conference viewing mode for the system in a multipoint call. The multipoint mode can be set to auto, discussion, presentation, or fullscreen. By default, it is set to auto.

Syntax

```
mpmode <get|auto|discussion|presentation|fullscreen>
```

Parameter	Description
`get`	Returns the current setting.
`auto`	In Auto mode, the system switches between Full Screen Mode and Discussion mode, depending on the interaction between the sites. If one site is talking uninterrupted for 15 seconds or more, the speaker appears full screen.
`presentation`	In Presentation mode, the person who is speaking appears full screen to the far sites, while the person who is speaking sees all the other sites on a split screen.
`discussion`	In Discussion mode (also called Continuous Presence mode), every site sees all the sites in the meeting at the same time, on a split screen.
`fullscreen`	In Full Screen mode, every site in the call sees the current speaker, or the latest person to speak, on the full screen.

Feedback Examples

- `mpmode auto`
- `mpmode presentation`
- `mpmode discussion`
- `mpmode fullscreen`

Comments

This option is not available unless the multipoint option is enabled.

What you see during a multipoint call can depend on many factors such as the system's monitor configuration, the number of sites in the call, whether content is shared, and whether dual monitor emulation is used.

mtumode

Sets or gets the MTU mode. The `mtumode` and `mtusize` commands allow you to change the Maximum Transmission Unit (MTU) size, to adjust for the best interoperability with the host network. Set `mtumode` to `specify`, then use `mtusize` to specify a value. If `mtumode` is set to `default`, the system automatically sets the MTU value to 1260.

Syntax

```
mtumode <get|default|specify>
```

Parameter	Description
`get`	Returns the current setting.
`default`	Sets the Maximum Transmission Unit size to the default value of 1260.
`specify`	Allows you to specify a Maximum Transmission Unit size other than the default setting.

Feedback Examples

Success examples:

```
->mtumode default
mtumode default
->mtumode specify
mtumode specify
->mtusize 660
mtusize 660
->mtusize 1140
mtusize 1140
```

Error examples:

```
->mtumode foo
error: command has illegal parameters
```

Command History

Introduced in VSX version 8.5.

See Also

See also the related `mtusize` command on page 4-155.

mtusize

Sets or gets the MTU size. The `mtumode` and `mtusize` commands allow you to change the Maximum Transmission Unit (MTU) size, to adjust for the best interoperability with the host network. Set `mtumode` to `specify`, then use `mtusize` to specify a value. If `mtumode` is set to `default`, the system automatically sets the MTU value to 1260.

Syntax

```
mtusize <get|660|780|900|1020|1140|1260|1500>
```

Parameter	Description
`get`	Returns the current setting.
`660|780|900|1020|1140|1260|1500`	Sets the value of the Maximum Transmission Unit size.

Feedback Examples

Success examples:

```
->mtumode default
mtumode default
->mtumode specify
mtumode specify
->mtusize 660
mtusize 660
->mtusize 1140
mtusize 1140
```

Error examples:

```
->mtumode foo
error: command has illegal parameters
```

Command History

Introduced in VSX version 8.5.

See Also

See also the related `mtumode` command on page 4-154.

mute

Sets or gets the near or far site mute settings.

Syntax

```
mute <register|unregister>
mute near <get|on|off|toggle>
mute far get
```

Parameter	Description
`register`	Registers to receive notification when the mute mode changes.
`unregister`	Disables register mode.
`near`	Sets the command for the near site. Requires `on`, `off`, `toggle`, or `get`.
`get`	Returns the current setting for the near or far site.
`on`	Mutes the near site (`mute near on`).
`off`	Unmutes the near site (`mute near off`).
`toggle`	If mute near mode is `mute near on`, this switches to `mute near off`, and vice versa.
`far`	Sets the command for the far site. Requires the parameter `get`.

Feedback Examples

- `mute near on`
- `mute registered`
- `mute unregistered`
- `mute near off`

`mute far on` or `mute far off` (returned from `mute far get` or when system is registered to receive mute states)

Comments

In register mode, the system sends notification to the API session when the far or near site is muted or unmuted.

muteautoanswer

Sets or gets the Mute Auto Answer Calls mode. When this setting is selected, the microphone is muted to prevent the far site from hearing the near site when the system answers automatically.

Syntax

```
muteautoanswer <get|yes|no>
```

Parameter	Description
`get`	Returns the current setting.
`yes`	Enables Mute Auto Answer Calls mode. The microphone will be muted when the system receives a call while in Auto Answer mode.
`no`	Disables Mute Auto Answer Calls mode. The microphone will not be muted when the system receives a call while in Auto Answer mode.

Feedback Examples

- `muteautoanswer no`
- `muteautoanswer yes`

natconfig

Sets or gets the NAT configuration.

Syntax

```
natconfig <get|auto|manual|upnp|off>
```

Parameter	Description
`get`	Returns the current setting.
`auto`	Specifies that the system is behind a NAT; specifies that the system will automatically discover the public (WAN) address.
`manual`	Specifies that the system is behind a NAT. Requires the WAN address to be assigned using the `wanipaddress` command on page 4-250.
`upnp`	Specifies that the system is behind a firewalled NAT router that is UPnP certified.
`off`	Disables the option when the system is not behind a NAT.

Feedback Examples

- `natconfig auto`
- `natconfig manual`
- `natconfig off`

nath323compatible

Sets or gets the **NAT is H.323 Compatible** setting.

Syntax

```
nath323compatible <get|yes|no>
```

Parameter	Description
`get`	Returns the current setting.
`yes`	Specifies that NAT is capable of translating H.323 traffic.
`no`	Specifies that NAT is not capable of translating H.323 traffic.

Feedback Examples

- `nath323compatible yes`
- `nath323compatible no`

Command History

Introduced in VSX version 8.5.

nearloop

Activates or deactivates the Near End Loop test.

Syntax

```
nearloop <on|off>
```

Parameter	Description
on	Activates the Near End Loop, a complete internal test of the system.
off	Deactivates the Near End Loop.

Feedback Examples

- `nearloop on`
  returns
  ```
  nearloop on
  cs: call[41] chan[0] dialstr[] state[ALLOCATED]
  active: call[41] speed[384]
  ```
- `nearloop off`
  returns
  ```
  nearloop off
  cleared: call[41]
  dialstring[IP: NAME:]
  ended: call[41]
  ```

Comments

When Near End Loop is on, you can test the encoder/decoder on the system. This can help you diagnose a problem with a video call. If you perform a near end loop test during a call, the far site sees a loop of itself.

netstats

Returns network statistics for each call.

Syntax

```
netstats [{0..n}]
```

Parameter	Description
`{0..n}`	Call in a multipoint call, where n is the maximum number of calls supported by the system. `0` is the first site connected. If no call is specified, `netstats` returns information about the near site.

Feedback Examples

```
netstats 2
```

might return

```
call:1 txrate:128k rxrate:128k pktloss:0 %pktloss:0.00% tvp:H.263
  rvp:H.263 tvf:CIF rvp:CIF tap:G.722.1 rap:G.722.1 tcp:H.323 rcp:H.323
```

where:

```
txrate=transmit clock rate
rxrate=receive clock rate
pktloss=number of packet loss/errors
%pktloss=percentage of packet loss/errors
tvp=transmit video protocol
rvp=receive video protocol
tvf=transmit video format
rvf=receive video format
tap=transmit audio protocol
rap=receive audio protocol
tcp=transmit comm protocol
rcp=receive comm protocol
```

nonotify

Unregisters the API client to receive status notifications.

Syntax

```
nonotify <callstatus|captions|linestatus|mutestatus|screenchanges>
nonotify <sysstatus|sysalerts|vidsourcechanges>
```

Parameter	Description
`callstatus`	Stops the system from receiving changes in call status, such as a connection or disconnection.
`captions`	Stops the system from capturing closed captions as they appear on the screen.
`linestatus`	Stops the system from receiving line status notifications.
`mutestatus`	Stops the system from receiving changes in audio mute status.
`screenchanges`	Stops the system from receiving notification when a user interface screen is displayed.
`sysstatus`	Stops the system from receiving system status notifications.
`sysalerts`	Stops the system from receiving system alerts.
`vidsourcechanges`	Stops the system from receiving notification of camera source changes.

Feedback Examples

`nonotify callstatus`
returns
`nonotify callstatus success`
acknowledging that the session is no longer registered to receive callstatus notifications.

If entered again,
`nonotify callstatus`
returns
`error: event/notification not active:callstatus.`

Comments

This command works with all Polycom HDX systems, and VSX systems running version 8.0 or later.

Command History

Introduced in VSX version 8.0.

See Also

See also the related `notify` command on page 4-163.

notify

Lists the notification types that are currently being received, or registers to receive status notifications.

Syntax

```
notify
notify <callstatus|captions|linestatus|mutestatus|screenchanges>
notify <sysstatus|sysalerts|vidsourcechanges>
notify <getregistrations>
```

Parameter	Description
`notify`	Lists the notification types that are currently being received, in the following format. `registered for <num> notifications[:notification type>...]`
`callstatus`	Registers the system to receive changes in call status, such as a connection or disconnection, in the following format. `notification:callstatus:<direction>:<connection id>:<far site name>:<far site number>:<connection status>:<speed>:<cause code>`
`captions`	Registers the system to capture closed captions as they appear on the screen, in the following format. `notification:caption:<"caption string">`
`linestatus`	Registers the system to receive line status notifications as they occur, in the following format: `notification:linestatus:<direction>: <connection id>:<line id>:<channel id>: <connection status>`
`mutestatus`	Registers the system to receive changes in audio mute status, in the following format. `notification:mutestatus:<near or far>:<connection id>:<site name>:<site number>:<mute status>`
`screenchanges`	Registers the system to receive notification when a user interface screen is displayed, in the following format. `notification:screenchange:<screen name>:<screen def name>`
`sysstatus`	Registers the system to receive system status notifications, in the following format. `notification:sysstatus:<sys parameter name>:<value1>[:<value2>...]`

Parameter	Description
`sysalerts`	Registers the system to receive system alerts, in the following format. `notification:sysalert:<alert name>:<value1>[:<value2>...]`
`vidsourcechanges`	Registers the system to receive notification of camera source changes, in the following format. `notification:vidsourcechange:<near or far>:<camera index>:<camera name>:<people or content>`
`getregistrations`	Lists the currently active notification subscriptions.

Feedback Examples

- `notify`
  returns something like
  `registered for 2 notifications:callstatus:mutestatus`
- `notify callstatus`
  returns
  `notify callstatus success`

  acknowledging that the session is now registered to receive callstatus notifications.
- If entered again,
  `notify callstatus`
  returns
  `event/notification already active:callstatus`

Callstatus Notifications are returned in the following format:
`notification:callstatus:<direction>:<connection id>:<far site name>:<far site number>:<connection status>:<speed>:<cause code>:<calltype>`

- `direction` is `incoming` for incoming calls or `outgoing` for outgoing calls
- `connection id` is a unique ID of the current call
- `far site name` is name of the far site
- `far site number` is the number of the far site—IP address, ISDN number, or extension of the far site
- `connection status` is `opened` printed when an outgoing call is first created, `connecting` printed when the call is in ringing state, `connected` printed when the call is completely connected, `disconnecting` when the call is in disconnecting state, or `disconnected` when the call is completely disconnected
- `speed` is the speed of the call

- `cause code` is status specific code returned by system call engine
- `calltype` is `videocall` if the call is a video call or `voiceonly` if the call is audio only call with POTS or ISDN voice

The following are examples of notifications that may be returned after registering to receive them.

Key off of "`notification:`"

- `notification:callstatus:outgoing:41:::opened::0`
- `notification:mutestatus:near:near:near:near:muted`
- `notification:screenchange:systemsetup:systemsetup_a`
- `notification:vidsourcechange:near:1:Main:people`
- `notification:linestatus:outgoing:32:0:0:disconnected`
- `notification:vidsourcechange:near:6:ppcip:content`
- `notification:vidsourcechange:near:none:none:content`

Comments

The `notify callstatus` command registers the current API session for call status notifications. The API client receives call status notifications as a call progresses.

Registration for status notifications is session-specific. For example, registering for alerts in a Telnet session does not return alerts in a simultaneous RS-232 session with the same system.

The `notify captions` command registers the current API session to receive notifications as closed captions are displayed. If closed captions are dropped for some reason, no notification is received. This command is typically used for capturing captions being displayed for archival purpose.

Duplicate registrations produce another success response. The notify setting remains in effect, even if you restart the system or update the software with system settings saved.

This command works with all Polycom HDX systems, and VSX systems running version 8.0 or later.

Command History

Introduced in VSX version 8.0.

See Also

See also the related `nonotify` command on page 4-162 and `callinfo` command on page 4-29.

ntpmode

Sets or gets the mode of the system's Network Time Protocol (NTP) server. NTP server time is used to ensure synchronized time data in the local Call Detail Report.

Syntax

```
ntpmode <get|auto|off|manual>
```

Parameter	Description
`get`	Returns the current time server mode.
`auto`	Automatically selects an NTP server from the Internet.
`off`	Turns off the use of an NTP server.
`manual`	Lets you specify a server using the `ntpserver` command on page 4-167.

Feedback Examples

- `ntpmode auto`
- `ntpmode off`
- `ntpmode manual`

See Also

See the `ntpserver` command on page 4-167.

ntpserver

Sets or gets an Network Time Protocol (NTP) server, using the IP address or the DNS name of the server.

Syntax

```
ntpserver get
ntpserver set ["xxx.xxx.xxx.xxx"|"server name"]
```

Parameter	Description
`get`	Gets the IP address of the NTP server.
`set`	Sets the IP address of the NTP server when followed by a valid parameter. To erase the current setting, omit the parameter.
`"xxx.xxx.xxx.xxx"`	The IP address of the NTP server.
`"server name"`	The DNS name of the NTP server.

Feedback Examples

- `ntpserver <empty>`
- `ntpserver set time.xyzcorp.com`
  returns
  `ntpserver time.xyzcorp.com`

Comments

This command allows you to use an internal time server and thus synchronize the system's time with the time on your internal network. The system uses this time only for the local Call Detail Report.

numdigitsdid

Sets or gets the number of digits in the DID Gateway number (E.164 dialing).

Syntax

```
numdigitsdid <get|{0..24}>
```

Parameter	Description
get	Returns the current setting.
{0..24}	Specifies the number of digits in DID numbers.

Feedback Examples

```
numdigitsdid 7
```

Comments

The number of digits in the DID is that portion of the full DID that the Gateway will be given from the ISDN service provider as the Called Party Line Identifier. This, in turn, will be passed to the Gatekeeper for address resolution.

numdigitsext

Sets or gets the number of digits in the Number+Extension Gateway number (E.164 dialing).

Syntax

```
numdigitsext <get|{0..24}>
```

Parameter	Description
`get`	Returns the current setting.
`{0..24}`	The number of digits in the gateway number if gatewaynumbertype is set to `number+extension`.

Feedback Examples

```
numdigitsext 10
```

Comments

The number of digits in that number is that portion of the full Number+Extension number that the Gateway will be given from the ISDN service provider as the Called Party Line Identifier. This, in turn, will be passed to the Gatekeeper for address resolution.

pause

Pauses the command interpreter before executing the next command. Pauses are useful when commands are retrieved from a script file.

Syntax

```
pause {0..65535}
```

Parameter	Description
{0..65535}	Number of seconds to pause.

Feedback Examples

pause 3
pausing for 3 seconds
pauses 3 seconds before the next command.

phone

Flashes the analog phone line.

Syntax

```
phone <clear|flash>
```

Parameter	Description
`clear`	Clears phone number from the text box.
`flash`	Sends flash hook to a POTS connection. If both of these call types exist, use the `flash` command to specify a call ID.

See Also

Use the `flash` command on page 4-84 to specify a call ID.

pip

Sets or gets the on-screen PIP mode. The PIP feature allows the near site to adjust near-camera views while in a video conference.

Syntax

```
pip <get|on|off|camera|swap|register|unregister|location>
pip location <get|0|1|2|3>
```

Parameter	Description
`get`	Returns the current setting.
`on`	Enables PIP mode. The system shows a PIP window that remains in the lower right corner of the screen until the video call is completed.
`off`	Disables PIP mode.
`camera`	Causes the PIP window to appear when the selected camera position is changed. The PIP window disappears when the camera has finished moving.
`swap`	Toggles the content of the PIP and the main display between the near-site and far-site view.
`register`	Registers the system to give notification when PIP is turned on or off.
`unregister`	Unregisters the system to give notification when PIP is turned on or off.
`location`	Places the PIP window in the specified corner of the screen: `0` = bottom right corner `1` = top right corner `2` = top left corner `3` = bottom left corner `get` = Returns the current location

Feedback Examples

- `pip on`
- `pip off`
- `pip camera`
- `pip swapped`
- `pip registered`
- `pip unregistered`
- `pip location 2`

popupinfo

Registers or unregisters to receive popup text and button choices text.

Syntax

```
popupinfo <get|register|unregister>
```

Parameter	Description
`register`	Registers to receive popup information.
`unregister`	Unregisters to receive popup information.
`get`	Returns the current setting.

Feedback Examples

Key off of "`popupinfo:`"

- `popupinfo registered`
  is returned to acknowledge that the session is now registered to receive popup information.
- `popupinfo: question: Sorry. Cannot dial number because you are already in a call with the site.`
- `popupinfo: choice0: Ok`
  might be returned if a call fails.
- `popupinfo: question: Save Changes?`
  `popupinfo: choice0: Yes`
  `popupinfo: choice1: No`
  `popupinfo: answered: Yes`
  is returned if the user edits the password field.

preset

Sets or gets the presets or goes (moves) to the presets for the near or far camera source. Also registers or unregisters the API session to give notification when the user sets or goes to presets.

Syntax

```
preset <register|unregister>
preset register get
preset far <go|set {0..15}>
perset near <go|set {0..99}>
```

Parameter	Description
`register`	Registers the system to give notification when the user or far site sets or goes to a preset. Returns the current preset registration state when followed by the `get` parameter.
`unregister`	Disables register mode.
`far`	Specifies the far camera. Requires a `set` or `go` parameter and a preset identifier.
`go`	Moves the camera to a camera preset. Requires a `"preset"` parameter.
`set`	Sets a camera preset. Requires a `"preset"` parameter.
`{0..15}`, `{0..99}`	Camera preset identifier. Must be an integer in the range `{0..15}` for a far-site camera or `{0..99}` for a near-site camera.
`near`	Specifies the near camera. Requires a `set` or `go` parameter and a preset identifier.

Feedback Examples

- `preset registered`
- `preset unregistered`
- `preset near go 1`
- `preset far set 3`
- `preset near set 2`
  causes the current location/position of the near-site camera to be saved as preset 2

Comments

Up to 100 preset camera positions can be set. These camera presets can be distributed across the far camera and up to four near-site cameras.

pricallbycall

Sets or gets the PRI call-by-call value. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
pricallbycall get
pricallbycall set {0..31}
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets PRI call-by-call when followed by a value from `{0..31}`.
`{0..31}`	Range of call-by-call values.

Feedback Examples

```
pricallbycall set 1
```

returns

```
pricallbycall 1
```

Comments

Call-by-call is a number from 0 to 31, which is optionally sent to an upstream telephone company switch, if required. For example, specify a value of 6 for a T1 PRI network interface module that is directly connected to an ATT 5ESS switch, which is provisioned with Accunet. You must consult with the telephone company service provider to determine whether a call-by-call value is required for a particular PRI line. For most cases, the default value of 0 is correct. Always use the value 0 when connected to a PBX. A non-zero value should not be required in Europe. Values greater than 31 are reserved for internal use and must not be used.

prichannel

Sets or gets the PRI channels that will be active for the PRI line. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
prichannel get all
prichannel get {1..n}
prichannel set all
prichannel set {1..n} <on|off>
```

Parameter	Description
`get`	Returns the current setting. Requires a parameter from `<all|{1..n}>`.
`all`	Selects all PRI channels and returns all channels and settings similar to `briallenable`.
`{1..n}`	Range of available PRI channels. For PRI T1, the range is `1..23`. For PRI E1, the range is `1..30`.
`set`	Sets the PRI channels to be active when followed by a parameter from `<all|{1..n}>` and from `<on|off>`.
`on`	Activates the selected PRI channels.
`off`	Disables the selected PRI channels.

Feedback Examples

- `prichannel 1 on`
- `prichannel 23 off`

Important PRI Channel Information

Outgoing Call. For an outgoing call, the system uses the first active and available channel starting with the lowest number from the channel range (1-23 for a PRI T1 and 1-30 for a PRI E1). If an additional channel is needed, the system chooses the next incremental number. For example, if channels 1 through 7 are inactive, but 8 is active and available, then 8 is the first channel that can be used by the system to place an outgoing call. If an additional channel is needed, the system will use the next available active channel in the range (which could be 9, and so on).

Incoming Calls. For incoming calls, the system may use the highest numbered channel in the range and, if needed, proceed to the next channel number in descending order, depending on the type of third-party equipment attached to the system. For example, an incoming call arrives on channel 23, then 22, 21, and so on.

Dedicated full PRI T1 or E1 Line. All channels should be active for a full T1 or E1 line dedicated to your system.

Fractional PRI T1 or E1. Channel selection should be handled by your PRI network administrator.

PRI E1 Channel Information. The PRI Status screen (for E1) shows 30 channels. However, E1 trunk lines have 32 timeslots, numbered 0 - 31. Timeslot 0 is used for framing, and timeslot 16 is used for call signaling (the D channel). The remaining 30 timeslots are used as bearer (data) channels. In call signaling between our equipment and the switch, these channels are numbered 1-15, 17-31. But the PRI Status screen numbers these channels contiguously in the range 1-30. Therefore, on the PRI Status screen, channels 1-15 control the status of timeslots 1-15, and channels 16-30 control the status of timeslots 17-31.

pricsu

Sets or gets the PRI CSU mode for a T1 interface.

Syntax

```
pricsu <get|internal|external>
```

Parameter	Description
`get`	Returns the current setting.
`internal`	Sets the internal CSU mode. This is the default.
`external`	Sets the external CSU mode. When selected, you must specify the PRI line buildout.

Feedback Examples

- `pricsu internal`
- `pricsu external`

Comments

By default, the T1 PRI network interface module is set for internal CSU mode.

See Also

The PRI line buildout for a T1 interface is set using the `prilinebuildout` command on page 4-181.

pridialchannels

Sets or gets the number of PRI channels to dial in parallel. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
pridialchannels get
prichannels set {1..n}
```

Parameter	Description
`set`	Sets the number of PRI channels to be dialed in parallel when followed by a parameter from `{1..n}`. To erase the current setting, omit the parameter.
`get`	Returns the current number of channels dialed in parallel.
`{1..n}`	Range of numbers of PRI channels that can be dialed in parallel. For PRI T1, the range is `1..12`. For PRI E1, the range is `1..15`.

Feedback Examples

```
pridialchannels set 3
```

returns

```
pridialchannels 3
```

Comments

By default, ISDN channels are dialed three at a time. On PRI systems, you can choose the number of channels to dial in parallel.

priintlprefix

Sets or gets the PRI international dialing prefix.

Syntax

```
priintlprefix get
priintlprefix set ["prefix"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the PRI international dialing prefix when followed by the parameter `"prefix"`. To erase the current setting, omit the parameter.
`"prefix"`	Numeric string.

Feedback Examples

```
priintlprefix set 011
```

returns

```
priintlprefix 011
```

Comments

The international prefix defaults to 011 for North America and 00 for European countries. The default depends on the country.

prilinebuildout

Sets or gets the PRI line buildout for a T1 interface.

Syntax

```
prilinebuildout get
prilinebuildout set <0|-7.5|-15|-22.5>
prilinebuildout set <0-133|134-266|267-399|400-533|534-665>
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the PRI line buildout. It requires an output "`attenuation in dB`" or an "`attenuation in feet`".
`0|-7.5|-15|-22.5`	Output attenuation values in dB. For internal CSUs.

`0-133|134-266|`
`267-399|400-533|`
`534-665`
	Output attenuation values in feet. For external CSUs.

Feedback Examples

```
prilinebuildout set -7.5
```

returns

```
prilinebuildout -7.5
```

Comments

If you are using an internal CSU, enter the output attenuation in dB. If you are using an external CSU, enter the output attenuation in feet.

See Also

The PRI CSU mode for a T1 interface is set using the `pricsu` command on page 4-178.

prilinesignal

Sets or gets the PRI line signal.

Syntax

```
prilinesignal get
prilinesignal set <esf/b8zs|crc4/hdb3|hdb3>
```

Parameter	Description
`get`	Returns the current PRI line signal setting.
`set`	Sets the PRI line signal. It requires one of the following parameters: `esf/b8zs`, `crc4/hdb3`, `hdb3`
`esf/b8zs`	A method of signal encoding used with a T1 interface. This is the only choice for T1. This value actually chooses both a framing format and an encoding method. Legacy frame formats, such as D4, are not supported. In addition, older encoding methods, such as B7ZS, are not supported.
`crc4/hdb3`	A method of signal encoding used with an E1 interface. This is the default value. Data is encoded using HDB3 to ensure proper one-density, and CRC4 error checking is enabled on both transmit and receive.
`hdb3`	A method of signal encoding used with an E1 interface. CRC4 error checking is disabled.

Feedback Examples

```
prilinesignal set esf/b8zs
```

returns

```
prilinesignal esf/b8zs
```

prinumberingplan

Sets or gets the PRI numbering plan. This command is only applicable if you have a PRI network interface connected to your system.

Syntax

```
prinumberingplan <get|isdn|unknown>
```

Parameter	Description
`get`	Returns the current setting.
`isdn`	With this parameter, the numbering plan is identified to the upstream switch as ISDN, and the number type, which is either national or international, is determined from the dialed phone number. If the dialed phone number starts with the international dialing prefix that is currently selected, the type is set to the international and the prefix is removed from the number before the number is sent to the upstream switch. Otherwise, the number is marked as national and passed to the upstream switch without modification.
`unknown`	This is the default selection. With this parameter, the numbering plan and number type are sent to the upstream as unknown, and the dialed phone number is sent without notification. The `unknown` parameter is preferred and should work with all properly configured PBXs and with most telephone company switches. A notable exception in North America is an ATT 5ESS switch, which is provisioned with Accunet, or an ATT 4ESS switch. For these switches, set the numbering type to ISDN.

Feedback Examples

- `prinumberingplan isdn`
- `prinumberingplan unknown`

prioutsideline

Sets or gets the PRI number that is dialed for outside line access.

Syntax

```
prioutsideline get
prioutsideline set ["outside_line"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the outside-line-access PRI number when followed by the parameter `"outside_line"`. To erase the current setting, omit the parameter.
`"outside_line"`	Numeric string. This number is provided by your network service provider.

Feedback Examples

```
prioutsideline set 9
```

returns

```
prioutsideline 9
```

Comments

This number is needed if your system is on a PBX.

priswitch

Sets or gets the PRI switch.

Syntax

```
priswitch get
priswitch set <att5ess|att4ess|norteldms|ni2>
priswitch set <net5/ctr4|nttins-1500|ts-038>
```

Parameter	Description
`get`	Returns the current switch protocol.
`set`	Sets the PRI switch. One of the switch protocol parameters is required.

`att5ess|att4ess|`
`norteldms|ni2|`
`net5/ctr4|`
`nttins-1500|ts-038`
	Switch protocol values.
	For E1, `net5/ctr4` is the default. `net5/ctr4` is the standard ETSI protocol derived from ITU Q.931.
	For T1, `net5/ctr4` is also provided for certain Asian countries, such as Japan, Hong Kong, and Taiwan.

Feedback Examples

```
priswitch set att5ess
```

returns

```
priswitch att5ess
```

Comments

If more than one switch protocol is supported, you must find out from your telephone service provider which protocol to select. NET5/CTR4 is the default. It is the standard ETSI protocol derived from ITU Q.931. If you change the country settings, a new set of PRI switch protocols is loaded.

reboot

Restarts the system.

Syntax

```
reboot now
reboot [yes|no]
```

Parameter	Description
now	Reboots the system without prompting you.
yes	Reboots the system. Can be abbreviated to y.
no	Does not reboot the system. Can be abbreviated to n.

Feedback Examples

- `reboot`

  returns the prompt `"reboot, are you sure? <y,n>"`

- `reboot y`

  reboots the system with no other feedback returned.

Comments

The preferred format is `reboot now`. The commands `reboot yes` and `reboot no` are supported for backwards compatibility only.

recentcalls

Returns the list of recent calls.

Syntax

```
recentcalls
```

Feedback Examples

```
"Austin Oasis" 16/Jun/2004 14:39:56 Out
Sooners 16/Jun/2004 14:40:07 Out
A 16/Jun/2004 14:40:35 Out
4136419 16/Jun/2004 20:27:33 Out
4136419 16/Jun/2004 20:28:37 Out
"POLYCOM MGC"   17/Jun/2004 02:13:23 In
209.163.168.122 17/Jun/2004 02:20:08 In
"POLYCOM MGC"   17/Jun/2004 02:21:40 In
"POLYCOM MGC"   17/Jun/2004 05:53:04 In
"POLYCOM MGC"   17/Jun/2004 07:00:19 In
```

registerall

Alias for the **all register** command.

Command History

Introduced in VSX version 8.5.

See Also

This command is an alias for the preferred `all register` command on page 4-11.

To unregister user feedback, use the `all unregister` command on page 4-12 or the `unregisterall` command on page 4-230.

registerthissystem

Sets or gets the system's IP address to be registered and displayed in the global directory when the system is powered on.

Syntax

```
registerthissystem <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables this option (register this system).
no	Disables this option.

Feedback Examples

- `registerthissystem yes`
- `registerthissystem no`

Comments

If you do not enable this option, the system has access to the GDS, but the IP address does not appear in the global directory.

remotecontrol

Set or gets the setting for intercepting signals from the system remote control.

Syntax

```
remotecontrol disable <get|all|none>
remotecontrol disable “valid button” [“valid button”...]
remotecontrol dontintercept <all|none>
remotecontrol dontintercept “valid button” [“valid button”...]
remotecontrol enable <all|none>
remotecontrol enable “valid button” [“valid button”...]
remotecontrol intercept <get|all|none>
remotecontrol intercept “valid button” [“valid button”...]
```

Parameter	Description
`disable`	Disables specified remote control button(s) so that the system does not respond.
`get`	Returns the current setting.
`all`	All of the remote control buttons.
`none`	None of the remote control buttons.
`“valid button”`	Name of a specific button such as call, hangup, left, right, up, down, select, home, directory, back, zoom-, zoom+, volume-, volume+, mute, far, near, auto, camera, preset, pip, keyboard, delete, **.**, 0-9, *, #, graphics, help.
`dontintercept`	Stops intercepting specified remote control button(s).
`enable`	Enables specified remote control button(s).
`intercept`	Disables and intercepts specified remote control button(s). Notification of button press events is sent to the API client.

Feedback Examples

- `remotecontrol disable all`
  returns
  `remotecontrol disable all success`
- `remotecontrol intercept pip`
  returns
  `remotecontrol intercept pip success`
- `remotecontrol disable get`
  returns something like
  `disabled 1 buttons:pip`

- `remotecontrol intercept get`
  returns something like
  `intercepting 0 buttons`
- `remotecontrol intercept all`
  returns
  `remotecontrol intercept all success`

The following is an example of a notification that may be returned after sending the intercept command.

Key off of "`notification:`"

```
notification:buttonintercept::ir:
notification:buttonintercept::ir:
notification:buttonintercept:home:ir:
```

Command History

Introduced in VSX version 8.0.

remotemonenable

Gets the state of remote room and call monitoring.

Syntax

```
remotemonenable get
```

Feedback Examples

- `remotemonenable on`
- `remotemonenable off`

Command History

Introduced in VSX version 8.5.

repeat

Repeats a specified command from the history list.

Syntax

```
repeat {1..64}
```

Parameter	Description
{1..64}	Repeats the specified command in the history list. Values larger than the number of commands in the history list are not valid. The history list may contain up to 64 commands.

requireacctnumtodial

Enables or disables the **Require Account Number to Dial** option. It is used to log calls to a specific account so that they can be tracked and billed to the appropriate departments.

Syntax

```
requireacctnumtodial <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the option.
no	Disables the option.

Feedback Examples

- `requireacctnumtodial no`
- `requireacctnumtodial yes`

Comments

When this option is selected, you cannot make a call without first entering an account number. This account number is saved in the Global Management System server database along with information specific to the call. Typically, the Global Management System administrator assigns the account number.

roomphonenumber

Sets or gets the number of the phone that is located in the same room as the system.

Syntax

```
roomphonenumber get
roomphonenumber set [“number”]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the room phone number when followed by the `“number”` parameter. To erase the current setting, omit the `“number”` parameter.
`“number”`	Phone number for a telephone (not the system) in the room. Use quotation marks around the number if it contains spaces. For example: `“512 555 1212”`

Feedback Examples

- `roomphonenumber <empty>`
- `roomphonenumber set “512 5551212”`
  returns
  `roomphonenumber 512 5551212`

Comments

If the system is managed by the Global Management System software, this number will be provided to the Global Management System administrator if the person using the system requests help.

rs232 baud

Sets or gets the baud rate for the first RS-232 port. For systems with two serial ports, use `rs232port1 baud` to set the rate for the second serial port.

Syntax

```
rs232 baud <get|9600|14400|19200|38400|57600|115200>
rs232port1 baud <get|9600|14400|19200|38400|57600|115200>
```

Parameter	Description
`get`	Returns the current baud rate setting.
`9600|14400|19200|38400|57600|115200`	Sets the RS-232 port to this baud rate.
`rs232port1`	Specifies serial port 2 on systems with two ports.

Feedback Examples

- `rs232 baud 9600`
- `rs232 baud 14400`

rs232 mode

Sets or gets the operational mode of the first RS-232 port. For systems with two serial ports, use `rs232port1 mode` to set the mode for the second serial port.

Syntax

```
rs232 mode <get|passthru|control|debug|camera_ptz|closed_caption|
  vortex_mixer|cps|interactive_touch_board|polycom_annotation|smartboa
  rd|pointmaker>
rs232port1 mode <get|passthru|control|debug|camera_ptz|closed_caption|
  vortex_mixer|cps|interactive_touch_board|polycom_annotation|smartboa
  rd|pointmaker>
```

Parameter	Description
`get`	Returns the current mode setting.
`passthru`	Sets the RS-232 port to Pass Thru mode.
`contol`	Sets the RS-232 port to Control mode.
`debug`	Sets the RS-232 port to Debug mode.
`camera_ptz`	Sets the RS-232 port to Camera PTZ mode.
`closed_caption`	Sets the RS-232 port to Closed Caption mode.
`vortex_mixer`	Sets the RS-232 port to Vortex Mixer mode.
`cps|interactive_touch_board|polycom_annotation|smartboard|pointmaker`	Reserved for future applications.
`rs232port1`	Specifies serial port 2 on systems with two ports.

Feedback Examples

- `rs232 mode control`
- `rs232 mode debug`

rs232monitor

Sets or gets the state of RS-232 serial port monitoring. When RS-232 monitoring is enabled, you can view all communication in and out of the serial port as output to Telnet port 23.

Syntax

```
rs232monitor get
rs232monitor <on|off>
```

Parameter	Description
`on`	Enables RS-232 serial port monitoring.
`off`	Disables RS-232 serial port monitoring.
`get`	Returns the current setting.

Feedback Examples

- `rs232monitor get`
  might return
  `rs232monitor off`
- `rs232monitor on succeeded`

Command History

Introduced in VSX version 8.5.

rs366dialing

Sets or gets RS-366 dialing. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
rs366dialing <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Enables RS-366 dialing.
off	Disables RS-366 dialing.

Feedback Examples

- `rs366dialing on`
- `rs366dialing off`

Comments

Enable this option if you want to call from the system through the DCE connection to the far-site video conferencing system. Disable this option if you are using your DCE to dial the call or if you have a dedicated connection to the far site.

rt

Sets or gets the RT serial interface control signal (receive timing: clock). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
rt <get|normal|inverted>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (rising edge receives data).
`inverted`	Sets the signal to inverted (falling edge receives data).

Feedback Examples

- `rt normal`
- `rt inverted`

Comments

The default setting is "`normal`".

rts

Sets or gets the RTS serial interface control signal (request to send). This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
rts <get|normal|inverted>
```

Parameter	Description
`get`	Returns the current setting.
`normal`	Sets the signal to normal (high voltage is logic 1).
`inverted`	Sets the signal to inverted (low voltage is logic 1).

Feedback Examples

- `rts normal`
- `rts inverted`

Comments

The default setting is `"normal"`.

screen

Returns the name of the current user interface screen on the system, registers or unregisters for screen changes, or goes to a specific user interface screen.

Syntax

```
screen
screen register get
screen [register|unregister]
screen "screen_name"
```

Parameter	Description
`screen`	Returns the name of the current user interface screen if not followed by other parameters.
`register`	Registers for user interface screen changes. In register mode, the name of every screen accessed is listed.
`get`	Returns the registration state for screen change events when followed by the `get` parameter.
`unregister`	Unregisters from user interface screen changes.
`"screen_name"`	Changes the user interface to display the specified screen. The supported screens depend on the system configuration.

Feedback Examples

Key off of `"screen:"`

- `screen`
  might return
  `screen: adminsettings`
- `screen register`
  might return
  `screen registered`
  `systemsetup`
  `adminsettings- screen: monitors`
  `screen: tvmonitors`
  `screen: cameras`

screencontrol

Disables or enables navigation to specified user interface screens of the system.

Syntax

```
screencontrol enable <all|none|“screen_name”>
screencontrol disable <all|none|“screen_name”>
```

Parameter	Description
`enable`	Enables navigation to the specified user interface screen(s).
`all`	All of the user interface screens.
`none`	None of the user interface screens.
`“screen_name”`	Name of a specific user interface screen.
`disable`	Disables navigation to the specified user interface screen(s).

Feedback Examples

- `screencontrol disable all`
  returns
  `screencontrol disable all success`
- `screencontrol disable adminsettings`
  disables navigation to the Admin Settings in the user interface
- `screencontrol disable none`
  reverses all screen disable commands

This command returns a failure for unknown screen names, for example

```
error: screencontrol screen “main” unknown
screencontrol enable main failed
```

Command History

Introduced in VSX version 8.0.

See Also

Refer to the `screen` command on page 4-202 for details about accessing screen names.

serialnum

Returns the serial number of the system.

Syntax

```
serialnum
```

Feedback Examples

```
serialnum
```

might return

```
serialnum 0202430240x2aa
```

session

Names or finds an active API session.

Syntax

```
session name “session-name”
session find “session-name”
```

Parameter	Description
`name`	Names the current API session.
`find`	Finds an active API session for this system.
`session-name`	Unique string that identifies the session.

Feedback Examples

- ```
  session name foo
  session name foo success
  ```
- ```
  session find foo
  info: session foo attached
  ```
- ```
  session find notpresent
  info: session notpresent not connected
  ```
- ```
  session name bar
  info: the supplied session name is already in use
  session name bar failed
  ```

Command History

Introduced in Polycom HDX version 1.0.

setaccountnumber

Sets the account number when it is required for dialing out.

Syntax

```
setaccountnumber "account number"
```

Parameter	Description
"account number"	Number that is needed to validate the account before dialing out.

Feedback Examples

```
setaccountnumber 1234
```

Comments

The account number is saved in the Global Management System database and is generally assigned by the Global Management System administrator. The option Required Account to Dial must be enabled for this command to work. When you make a call, you will be prompted to enter your account number.

See Also

See the related requireacctnumtodial command on page 4-194.

showpopup

Displays a message box in the user interface.

Syntax

```
showpopup “text to display”
```

Parameter	Description
`“text to display”`	Message to display to users. Enclose the text in quotation marks if it contains a space.

Feedback Examples

```
showpopup “The conference will resume in three minutes.”
```

returns

```
showpopup The conference will resume in three minutes.
```

and the popup is displayed in the user interface.

Comments

Sending this command displays the message as a popup dialog in the user interface, along with an alert tone.

sleep

Puts the system in sleep mode and returns sleep.

Syntax

```
sleep
sleep <register|unregister>
```

Parameter	Description
`sleep`	Puts the system in sleep mode if not followed by other parameters.
`register`	Registers for sleep or wake events.
`unregister`	Unregisters from sleep or wake events.

See Also

To wake the system from sleep mode, use the `wake` command on page 4-249.

sleeptime

Sets or gets the wait time value before the system goes to sleep and displays the screen saver.

Syntax

```
sleeptime <get|0|1|3|15|30|60|120|240|480>
```

Parameter	Description
`get`	Returns the current setting.
`0|1|3|15|30|60|120|240|480`	Sets the number of minutes from last user interaction to entering sleep mode. The default value is 3.

Feedback Examples

sleeptime 1

snmpadmin

Sets or gets the SNMP administrator name.

Syntax

```
snmpadmin get
snmpadmin set ["admin name"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the administrator name when followed by the `"admin name"` parameter. To erase the current setting, omit `"admin name"`.
`"admin name"`	SNMP administrator contact name. Character string. Enclose the character string in quotation marks if it includes spaces. Example: `"John Admin"`

Feedback Examples

- `snmpadmin <empty>`
- `snmpadmin set "John Admin"`
  returns
  `snmpadmin "John Admin"`

snmpcommunity

Sets or gets the SNMP community name.

Syntax

```
snmpcommunity get
snmpcommunity set ["community name"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP community name when followed by the `"community name"` parameter. To erase the current setting, omit the parameter.
`"community name"`	SNMP community name. Character string. Enclose the character string in quotation marks if it includes spaces.

Feedback Examples

- `snmpcommunity <empty>`
- `snmpcommunity set Public`
  returns
  `snmpcommunity Public`

snmpconsoleip

Sets or gets the SNMP console IP address.

Syntax

```
snmpconsoleip get
snmpconsoleip set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP console IP address when followed by the `"xxx.xxx.xxx.xxx"` parameter. To erase the current setting, omit the parameter.
`"xxx.xxx.xxx.xxx"`	IP address of the console.

Feedback Examples

- `snmpconsoleip <empty>`
- `snmpconsoleip set 192.168.1.111`
  returns
  `snmpconsoleip 192.168.1.111`

snmplocation

Sets or gets the SNMP location name.

Syntax

```
snmplocation get
snmplocation set ["location name"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP location name when followed by the `"location name"` parameter. To erase the current setting, omit the parameter.
`"location name"`	SNMP location name. Enclose the location name in quotation marks if it includes spaces.

Feedback Examples

- `snmplocation <empty>`
- `snmplocation set "john_EX in United States"`
  returns
  `snmplocation "john_EX in United States"`

snmpsystemdescription

Sets or gets the SNMP system description.

Syntax

```
snmpsystemdescription get
snmpsystemdescription set ["system description"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the SNMP system description when followed by the `"system description"` parameter. To erase the current setting, omit the parameter.
`"system description"`	SNMP system description.

Feedback Examples

- `snmpsystemdescription <empty>`
- `snmpsystemdescription set "videoconferencing system"` returns `snmpsystemdescription "videoconferencing system"`

soundeffectsvolume

Sets, gets, or tests the volume level of the ring tone and user alert tone on the system.

Syntax

```
soundeffectsvolume get
soundeffectsvolume set {0..10}
soundeffectsvolume test
```

Parameter	Description
`get`	Returns the current setting along with a test tone from the system at that volume level.
`set`	Sets the volume of sound effects. Requires a volume parameter in the range `{0..10}`.
`test`	Tests the volume of sound effects.

Feedback Examples

- `soundeffectsvolume get`
  might return
  `soundeffectsvolume 6`
- `soundeffectsvolume test`
  returns
  `soundeffectsvolume test`
  and a tone is produced by the system.

spidnum

Sets or gets the ISDN SPID numbers assigned to the BRI lines used by the system. This command is only applicable if you have a BRI network interface connected to your system.

Syntax

```
spidnum get <all|1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2>
spidnum set <1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2> [“spid number”]
```

Parameter	Description
`get`	Returns the current SPID number associated with a B channel of a particular line.
`all`	Returns SPIDs for all channels of all lines.
`1b1|1b2|2b1|2b2|3b1|3b2|4b1|4b2`	The line and B channel. Valid values are: `1b1` BRI line 1, B channel 1 `1b2` BRI line 1, B channel 2 `2b1` BRI line 2, B channel 1 `2b2` BRI line 2, B channel 2 `3b1` BRI line 3, B channel 1 `3b2` BRI line 3, B channel 2 `4b1` BRI line 4, B channel 1 `4b2` BRI line 4, B channel 2
`set`	Sets the SPID number for a B channel line when followed by the `“number”` parameter. To erase the current setting, omit `“number”`.
`“spid number”`	Numeric string. SPID numbers are generally provided by your network service provider.

Feedback Examples

- `spidnum 1b1 <empty>`
- `spidnum 1b1 5125551212`
- `spidnum get all`
  returns spidnums for channels 1b1 through 4b2 if there are 4 lines attached in the above format.

Comments

SPIDs generally apply only in the United States and Canada. If you are behind an internal phone system (PBX), SPIDs may not be required.

st

Sets or gets the st serial interface control signal (send timing: clock) setting. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
st <get|normal|inverted>
```

Parameter	Description
get	Returns the current setting.
normal	Sets the signal to normal (falling edge sends data).
inverted	Sets the signal to inverted (rising edge sends data).

Feedback Examples

- st normal
- st inverted

Comments

The default setting is "normal".

subnetmask

Sets or gets the subnet mask of the system.

Syntax

```
subnetmask get
subnetmask set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`get`	Returns the current subnet mask.
`set`	Sets the subnet mask of the system when followed by the "`xxx.xxx.xxx.xxx`" parameter. To erase the current setting, omit "`xxx.xxx.xxx.xxx`".
"`xxx.xxx.xxx.xxx`"	Subnet mask of the system.

Feedback Examples

```
subnetmask 10.11.12.13
restart system for changes to take effect. restart now? <y,n>
```

Comments

After making a change, you are prompted to restart the system.

sysinfo

Sets or gets registration for ISDN, IP, and gatekeeper status notifications.

Syntax

```
sysinfo <get|register|unregister>
```

Parameter	Description
`get`	Returns registration status.
`register`	Registers the shell session to receive ISDN, IP, and gatekeeper status notifications.
`unregister`	Unregisters the shell session for ISDN, IP, and gatekeeper status notifications.

Feedback Examples

Sample session:

```
->sysinfo get
sysinfo unregistered
->sysinfo register
sysinfo registered
->sysinfo get
sysinfo registered
```

Once registered for `sysinfo` notifications, status changes in ISDN lines might return

```
linestate: isdnline[1] down
linestate: isdnline[2] down
linestate: isdnline[3] up
linestate: isdnline[4] up
linestate: isdnline[1] up
linestate: isdnline[3] down
linestate: isdnline[4] down
linestate: isdnline[2] up
```

systemname

Sets or gets the name of the system.

Syntax

```
systemname get
systemname set "system name"
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the system name to "`system name`".
`"system name"`	Character string specifying the system name. Enclose the string in quotation marks if it includes spaces. Example: `"Pacific Room"`

Feedback Examples

- `systemname "My"`
- `systemname MyOwn`

Comments

The first character must be a numeric (a digit) or alphabetic (a letter) character including foreign language characters. The name can be any combination of alphanumeric characters and may be up to 30 characters in length. The system name cannot be blank.

tcpports

Sets or gets the TCP ports on the system.

Syntax

```
tcpports get
tcpports set [{1024..49150}]
```

Parameter	Description
`set`	Sets the TCP ports when followed by a value from the range `{1024..49150}`. To erase the current setting, omit the value.
`get`	Returns the current TCP port setting.

Feedback Examples

```
tcpports 3233
```

Comments

The **Fixed Ports** option on the same page must be selected for the **TCP Ports** option to be available.

techsupport

Sends your phone number to Global Management System technical support if your system is managed by the Global Management System.

Syntax

```
techsupport <"phone num">
```

Parameter	Description
"phone num"	Phone number at which the user of this system will be contacted. To obtain rapid assistance, include the area code with the phone number. Enclose the string in quotation marks if it includes spaces. Example: "512 555 1212"

Feedback Examples

```
techsupport will contact you at 1 512 555 1212
```

Comments

The Support icon is visible only when the system is registered with the Polycom Global Management System.

teleareacode

Sets or gets the system's area code.

Syntax

```
teleareacode get
teleareacode set ["telephone_area_code"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the telephone number when followed by the `"telephone_area_code"` parameter. To erase the current setting, omit the parameter.
`"telephone_area_code"`	System's area code.

Feedback Examples

```
teleareacode set 555
```

returns

```
teleareacode 555
```

telecountrycode

Sets or gets the system's telephone country code.

Syntax

```
telecountrycode get
telecountrycode set ["telephone_country_code"]
```

Parameter	Description
`get`	Returns the country code information.
`set`	Sets the telephone country code when followed by the `"telephone_country_code"` parameter. To erase the current setting, omit the parameter.
`"telephone_country_code"`	Numeric value. This code is the same as the ISDN country code.

Feedback Examples

```
telecountrycode set 33
```

returns

```
telecountrycode 33
```

Comments

This code is associated with the country where the system is used. The system is generally able to automatically determine the country code based on the country you selected during initial system setup. This option is automatically set by the Country.

telenumber

Sets or gets the system's telephone number.

Syntax

```
telenumber get
telenumber set ["telephone_number"]
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the telephone number when followed by the `"telephone number"` parameter. To erase the current setting, omit the parameter.
`"telephone_number"`	System's telephone number. Enclose the string in quotation marks if it includes spaces. Example: `"512 555 1212"`

Feedback Examples

```
telenumber set 5551212
```

returns

```
telenumber 5551212
```

telnetmonitor

Sets or gets the state of Telnet session monitoring. When Telnet monitoring is enabled, you can view all communication to and from the Telnet port 24 session as output to Telnet port 23.

Syntax

```
telnetmonitor get
telnetmonitor <on|off>
```

Parameter	Description
`get`	Returns the current setting.
`on`	Enables Telnet monitoring.
`off`	Disables Telnet monitoring

Feedback Examples

- `telnetmonitor get`
  might return
  `telnetmonitor off`
- `telnetmonitor on succeeded`

Command History

Introduced in VSX version 8.5.

timediffgmt

Sets or gets the time difference from where the system is installed and Greenwich Mean Time (GMT). This allows the Global Management System to view the local time of the managed system.

Syntax

```
timediffgmt <get|{-12:00..+12:00}>
```

Parameter	Description
`get`	Returns the current setting.
`{-12:00..+12:00}`	Sets the time difference from GMT to this value. +00:00 is GMT time.

Feedback Examples

```
timediffgmt -06:00
```

typeofservice

Sets or gets the type of service for Quality of Service.

Syntax

```
typeofservice <get|ipprecedence|diffserv>
```

Parameter	Description
`get`	Returns the current setting.
`ipprecedence`	Selects IP precedence service.
`diffserv`	Selects DiffServ service.

Feedback Examples

```
typeofservice diffserv
```

See Also

See the `ipprecaudio, ipprecfecc, ipprecvideo` command on page 4-127.
See the `diffservaudio, diffservfecc, diffservvideo` command on page 4-59.

udpports

Sets or gets the UDP ports on the system.

Syntax

```
udpports get
udpports set [{1024..49150}]
```

Parameter	Description
`get`	Returns the current UDP port setting.
`set`	Sets the UDP ports when followed by a value from the range `{1024..49150}`. To erase the current setting, omit the value.

Feedback Examples

```
udpports set 3230
```

returns

```
udpports 3230
```

Comments

The **Fixed Ports** option on the same page must be selected for the UDP Ports option to be available.

unregisterall

Alias for the **all unregister** command.

Syntax

```
unregisterall
```

Command History

Introduced in VSX version 8.5.

See Also

This command is an alias for the preferred `all unregister` command on page 4-12.

To register for user feedback, use the `all register` command on page 4-11 or the `registerall` command on page 4-188.

usefixedports

Sets or gets the Fixed Ports configuration.

Syntax

```
usefixedports <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the use of Fixed Ports.
no	Disables the use of Fixed Ports.

Feedback Examples

- `usefixedports no`
- `usefixedports yes`

usegatekeeper

Sets or gets the gatekeeper mode (off, specify, or auto).

Syntax

```
usegatekeeper <get|off|specify|auto>
```

Parameter	Description
`get`	Returns the current setting. **Note:** A gatekeeper is not required to make IP-to-IP LAN calls. In these situations, select the `off` option.
`off`	Select this option if no gatekeeper is required or if you make IP-to-IP LAN calls.
`specify`	Specifies a gatekeeper. If this option is selected, you must enter the gatekeeper IP address or name using the `gatekeeperip` command on page 4-88.
`auto`	Sets the system to automatically find an available gatekeeper.

Feedback Examples

```
usegatekeeper auto
```

See Also

See the `gatekeeperip` command on page 4-88.

usepathnavigator

Sets or gets the Polycom PathNavigator™ mode, if PathNavigator is used with the system.

Syntax

```
usepathnavigator <get|always|never|required>
```

Parameter	Description
`get`	Returns the current setting.
`always`	Always use PathNavigator to place a multipoint call. Never use the external MCU.
`never`	Never use PathNavigator to place a multipoint call. Use the external MCU instead.
`required`	This is the default. When this option is selected, if the multipoint call is within the MCU capabilities, it is handled by the MCU; otherwise, beyond the MCU capabilities, it is handled through the PathNavigator/MGC™.

Feedback Examples

- `usepathnavigator always`
- `usepathnavigator never`
- `usepathnavigator required`

Comments

This option is only accessible if PathNavigator is used.

Because PathNavigator uses an MGC, it can handle video conferences with more participants and higher speeds than an embedded MCU. PathNavigator, which supports ad-hoc multipoint video conferencing, is required to implement Conference on Demand™. Conference on Demand allows users to bring multiple endpoints together in a video conference on an unscheduled basis. It allows users to place multipoint video calls to remote participants by only using their names and/or numbers that correspond to those remote locations.

useroompassword

Sets or gets the **Use Room Password for Remote Access** setting.

Syntax

```
useroompassword get
useroompassword <no|yes>
```

Parameter	Description
`get`	Returns the current setting.
`no`	Configures the system to use a separate room password and remote access password.
`yes`	Configures the system to use the same password for room and remote access.

Feedback Examples

- `useroompassword yes`
- `useroompassword no`

Command History

Introduced in VSX version 8.5.

v35broadcastmode

Sets or gets the V.35 broadcast mode. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
v35broadcastmode <get|on|off>
```

Parameter	Description
get	Returns the current setting.
on	Turns on V.35 broadcast.
off	Turns off V.35 broadcast.

Feedback Examples

- `v35broadcast on`
- `v35broadcast off`

Command History

Introduced in VSX version 8.5.

v35dialingprotocol

Sets or gets the V.35 dialing protocol. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
v35dialingprotocol <get|rs366>
```

Parameter	Description
`get`	Returns the current setting.
`rs366`	Enables RS-366 as the dialing protocol. At this time, RS-366 is the only supported dialing protocol on the system.

Feedback Examples

```
v35dialingprotocol rs-366
```

Comments

Selecting a dialing protocol is not needed if you are using your DCE to dial the call or if you have a dedicated connection to the far site.

v35num

Sets or gets the ISDN video numbers assigned to the system. This command is only applicable if you have a V.35 network interface connected to your system.

Syntax

```
v35num get <1b1|1b2>
v35num set <1b1|1b2> ["v35 number"]
```

Parameter	Description
`get`	Returns the current ISDN video number associated with a B channel of a particular line. Requires `<1b1|1b2>`.
`1b1|1b2`	B1 and B2 channels: `1b1` designates line 1, B channel 1 (B1). `1b2` designates line 1, B channel 2 (B2).
`set`	Sets the ISDN video number for a B channel line when followed by a `"v35 number"` parameter. To erase the current setting, omit the `"v35 number"` parameter. `1b1` is port 1 and `1b2` is port 2.
`"v35 number"`	Numeric string. This is the ISDN video number(s) provided by your network service provider.

Feedback Examples

- `v35num 1b2 <empty>`
- `v35num set 1b1 5125551212`
  returns
  `v35num 1b1 5125551212`

Comments

The `1b1` and `1b2` parameters follow the convention and nomenclature of the user interface and the `isdnnum` command on page 4-133.

See Also

See the `isdnnum` command on page 4-133.

v35portsused

Sets or gets the number of ports to use on the V.35/RS-449/RS-530 network interface module.

Syntax

```
v35portsused <get|1|1+2>
```

Parameter	Description
get	Returns the current setting.
1	Selects one port for one-channel calls.
1+2	Selects two ports for two-channel calls (2 x 56 kbps or 2 x 64 kbps).

Feedback Examples

- `v35portsused 1`
- `v35portsused 1+2`

v35prefix

Sets or gets the V.35 dialing prefix. It assumes that a profile has already been selected.

Syntax

```
v35prefix get “valid speed”
v35prefix set “valid speed” [“value”]
```

Parameter	Description
`get`	Returns the current setting for “`valid speed`”.
`set`	Sets the V.35/RS-449/RS-530 prefix when followed by a “`value`” parameter. To erase the current setting, omit the “`value`”.
“`valid speed`”	Valid speeds are 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 28x64, 1856, 1920, all. The parameter “`all`” lists all the available speeds and their associated dialing prefixes.
“`value`”	V.35/RS-449/RS-530 prefix, which is a function of your DCE. Consult the DCE user guide for information.

Feedback Examples

- `v35prefix 56 <empty>`
- `v35prefix set 112 ”#005”`
  associates the dialing prefix 005 to the speed 112 and returns
  `v35prefix set 112 #005`
- `v35prefix set 112`
  clears the dialing prefix for the speed 112 and returns
  `v35prefix set 112`

See Also

See the `v35profile` command on page 4-240.

v35profile

Sets or gets a V.35 profile associated with dialing through a DCE. It can also display all the settings (speed, prefix or suffix) of the current profile.

Syntax

```
v35profile
  <get|adtran|adtran_isu512|ascend|ascend_vsx|ascend_max|avaya_mcu|
  custom_1|fvc.com|initia|lucent_mcu|madge_teleos>
```

Parameter	Description
`get`	Returns the current profile.
`adtran|adtran_isu512|ascend|ascend_vsx|ascend_max|avaya_mcu|custom_1|fvc.com|initia|lucent_mcu|madge_teleos`	V.35/RS-449/RS-530 profile (equipment/manufacturer) available. Consult your DCE user guide for additional information on setting dialing profiles.

Feedback Examples

- `v35profile adtran_isu512`
  selects adtran_isu512 as the profile.

v35suffix

Sets or gets the V.35 dialing suffix. It assumes that a profile has already been selected.

Syntax

```
v35suffix get “valid speed”
v35suffix set “valid speed” [“value”]
```

Parameter	Description
`get`	Returns the current setting for valid speed.
`set`	Sets the dialing suffix when followed by a `“value”` parameter. To erase the current setting, omit the `“value”` parameter.
`“valid speed”`	Valid speeds are 56, 64, 2x56, 112, 2x64, 128, 168, 192, 224, 256, 280, 320, 336, 384, 392, 7x64, 504, 512, 560, 576, 616, 640, 672, 704, 728, 768, 784, 832, 840, 14x64, 952, 960, 1008, 1024, 1064, 1088, 1120, 1152, 1176, 1216, 1232, 1280, 1288, 21x64, 1400, 1408, 1456, 1472, 1512, 1536, 1568, 1600, 1624, 1664, 1680, 1728, 28x64, 1856, 1920, all. The parameter `“all”` lists all the available speeds and their associated dialing prefixes.
`“value”`	The dialing suffix, which is a function of your DCE. Consult the DCE user guide for information.

Feedback Examples

- `v35suffix 128 <empty>`
- `v35suffix set 128 ”#4#2”`
  associates the dialing suffix #4#2 to the speed 128 and returns
  `v35suffix set 128 #4#2`

Comments

User interface screen location: **System > Admin Settings > Network > V.35/RS-449/RS-530** (page 2)**: Suffix**

See Also

See the `v35profile` command on page 4-240.

validateacctnum

Sets or gets the validation for the Global Management System account number that is used when dialing out.

Syntax

```
validateacctnum <get|yes|no>
```

Parameter	Description
get	Returns the current setting.
yes	Enables the Global Management System account number validation option.
no	Disables the Global Management System account number validation option.

Feedback Examples

- `validateacctnum no`
- `validateacctnum yes`

Comments

When the call connects, the system verifies that the account exists with the Global Management System server. If the account does not exist, the call is disconnected.

vcbutton

Controls a content video source. It can also register or unregister to receive notification of content events.

Syntax

```
vcbutton <get|play|stop|register|unregister>
vcbutton map <get|{2..5}
```

Parameter	Description
`get`	Returns the current setting (play or stop).
`play`	Starts sending the content from the computer.
`stop`	Stops sending the content from the computer.
`register`	Registers the API session to receive notifications about content events.
`unregister`	Unregisters the API session to receive notifications about content events.
`map get`	Gets the content video source currently specified for control.
`map {2..5}`	Specifies the content video source to control.

Feedback Examples

- `vcbutton registered`
- `vcbutton unregistered`
- `vcbutton play`
  returns
  `Control event: vcbutton play`
  `vcbutton play`
- `vcbutton stop`
  returns
  `Control event: vcbutton stop`
  `vcbutton stop`
- Pressing the play button at the far site returns
  `Control event: vcbutton farplay`
- Pressing the stop button at the far site returns
  `Control event: vcbutton farstop`
- Pressing the play button on the local system returns
  `Control event: vcbutton play`
- Pressing the stop button on the local system returns
  `Control event: vcbutton stop`

vcrrecordsource

Sets or gets the VCR/DVD record source.

Syntax

```
vcrrecordsource get
vcrrecordsource <near|far|auto|content|content-or-near|
  content-or-far|content-or-auto|none>
```

Parameter	Description
get	Returns the current setting.
near	Sets the VCR to record the near-site video source.
far	Sets the VCR to record the far-site video source.
auto	Sets the VCR to automatically record the current speaker in a point-to-point call.
content	Sets the VCR to record content, when presented.
content-or-near	Sets the VCR to record near-site video or content, when presented.
content-or-far	Sets the VCR to record far-site video or content, when presented.
content-or-auto	Sets the VCR to record the current speaker or content, when presented.
none	Sets the VCR to record nothing.

Feedback Examples

- `vcrrecordsource auto`
- `vcrrecordsource near`
- `vcrrecordsource near`

version

Returns the current system's version information.

Syntax

```
version
```

Feedback Examples

```
version "Release 8.5 12jul2006 06:09"
```

volume

Sets or gets the call audio volume (not sound effects) on the system or registration for volume changes.

Syntax

```
volume <register|unregister>
volume <get|up|down|set {0..50}>
```

Parameter	Description
`register`	Registers to receive notification when the volume changes.
`unregister`	Disables register mode.
`get`	Returns the current volume level.
`up`	Increases the audio volume by 1.
`down`	Decreases the audio volume by 1.
`set`	Sets the volume to a specified level. Requires a volume setting from `{0..50}`.

Feedback Examples

- `volume registered`
- `volume set 10`

  returns
  `volume 10`
  and a subsequent command
  `volume up`
  returns
  `volume 11`

Comments

Changes the call audio volume (not sound effects) on the system.

vortex

Sends commands to a Polycom Vortex mixer.

Syntax

```
vortex <0|1> mute <on|off>
vortex <0|1> forward “vortex_macro”
```

Parameter	Description
`0|1`	Specifies the serial port to which the Vortex mixer is connected.
`mute`	Sets the mute state for the Vortex mixer connected to the specified serial port.
`on`	Mutes the Vortex mixer.
`off`	Unmutes the Vortex mixer.
`forward`	Forwards the `vortex_macro` to the Vortex mixer connected to the specified serial port.
`“vortex_macro”`	Specifies the Vortex mixer macro command to send. For more information about these commands, refer to the Vortex documentation.

Feedback Examples

The response from the Vortex is displayed in the following form:
`vortex <portnum> forward <vortexcmd>:<vortexresponse>`

- `vortex 0 forward F00PING`
  might have the Vortex response
  `F00PONG`
  and API response
  `vortex 0 forward F00PING:F00PONG`
  If the Vortex doesn’t respond, the API response is
  `vortex 0 forward F00PING:failed`

- `vortex 1 mute on`
  mutes the Vortex connected to the second serial port on the back of the system

Comments

The Vortex commands are applicable when you have a Vortex mixer connected to a system. An API client can send these commands to control a Vortex mixer using the command format:
`vortex <portnum> forward <vortexcmd>`
where `<portnum>` is 0 if the Vortex is connected to first serial port or 1 if the Vortex is connected to second serial port, and `<vortexcmd>` is a Vortex-specific command. Whatever value is passed in this parameter will be sent to the Vortex.

waitfor

This command is used within script files or control panel programs to wait for a specific event before executing the next statement. It causes the API session to wait until a call being placed either connects or fails, or until system is ready to place a call (such as after a reboot waiting for the ISDN lines to come up).

Syntax

```
waitfor <callcomplete|systemready>
```

Parameter	Description
`callcomplete`	Causes the API session to wait until a call being placed either connects or fails.
`systemready`	Causes the system to return the message `"system is ready"` when the system is ready to make a call.

Examples

Feedback examples:

- `waiting for call complete`
- `call is complete`
- `waiting for system ready`
- `system is ready`

Comments

This command can be used to synchronize a remote controller with the system. The API session echoes the message `"call complete"` when the call connects or is aborted.

wake

Wakes the system from sleep mode.

Syntax

```
wake
```

Feedback Examples

```
wake
```

See Also

To put the system in sleep mode, use the `sleep` command on page 4-208.

wanipaddress

Sets or gets the WAN IP address.

Syntax

```
wanipaddress get
wanipaddress set ["xxx.xxx.xxx.xxx"]
```

Parameter	Description
`set`	Sets the WAN IP address when followed by the "xxx.xxx.xxx.xxx" parameter. To erase the current setting, omit the "xxx.xxx.xxx.xxx" parameter.
`get`	Returns the WAN IP address.
"xxx.xxx.xxx.xxx"	WAN IP address.

Feedback Examples

```
wanipaddress set 192.168.1.122
```

returns

```
wanipaddress 192.168.1.122
```

Comments

The **NAT Configuration** option on the same page must be set to **Auto**, **Manual**, or **UPnP** for this option to be available.

webport

Sets or gets the port to use when accessing the system using the web interface.

Syntax

```
webport get
webport set “port”
```

Parameter	Description
`get`	Returns the current setting.
`set`	Sets the web access port to “`port`”.

Feedback Examples

```
webport set 80
```

returns

```
webaccessport 80
restart system for changes to take effect.  restart now? <y,n>
```

Comments

If you change this from the default (port 80), you will need to include the port number with the IP address when you use the web interface to access the system. This makes unauthorized access more difficult. After making a change, you are prompted to restart the system.

whoami

Displays the same initial banner information as when the RS-232/Telnet session was started with the system.

Syntax

```
whoami
```

Feedback Examples

```
Hi, my name is : mine
Here is what I know about myself:
Model: VSX 7000
Serial Number: 8202410240DAK
Software Version: Release 8.5 - 19Jul2006 16:16
Build Information: root on aus.austin.polycom.com
FPGA Revision: 4.3.0
Main Processor: BSP15 v0.0 ~ Core/Mem Clks 405/135  [3:4 0:3]
Time In Last Call: 0:00:00
Total Time In Calls: 58:17:10
Total Calls: 81
SNTP Time Service: auto insync ntp1.polycom.com
Local Time is: Tue, 27 Mar 2007 17:16:41 -0500
Network Interface: ISDN_QUAD_BRI
IP Video Number: 216.54.150.0
ISDN Video Number: 1.
MP Enabled: g
H323 Enabled: True
FTP Enabled: True
HTTP Enabled: True
SNMP Enabled: True
NIC Slot 1 SW Ver: 6.03
NIC Slot 1 Boot Ver: 0.02
```

A

Room Design and Layout

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For clarity of discussion, we have divided this section into the following sub-sections:

- Room construction, including wall construction, windows and window treatments, ceilings and HVAC;
- Interior design and finishes;
- Furniture design, including placement and layout;
- Room acoustics and acoustic treatment; and
- Room lighting.

The initial layout and construction of the space affects all the elements that are discussed in other sections of this book [*Basics of Audio and Visual Systems Design*], including acoustic characteristics and performance, general and ambient light control, and overall comfort.

Room Requirements

We begin with general room requirements. The total floor space required for VC is much greater than we have become used to for general local presentation and meeting. In architectural terms it is not uncommon to find a rule-of-thumb applied that allows for up to 15 square feet of floor space per participant in a traditional presentation or meeting room. If there is a front-of-room presenter position at a podium, and if there is some use of in-room technology (projection devices, whiteboards, etc.), then this figure may increase to as much as 20 square feet of floor space per participant, but rarely any more than that.

It is here that we have our first conflict. In videoconferencing we have to consider not only the issues related to local viewing and hearing but also the issues of being seen and heard by people at the far-end of the connection. This means that we must consider sight lines and angles of participant interaction that go beyond traditional presentation environments. As a rule we should allow not less than 30 square feet and generally not more than 45 square feet of floor space per participant in a videoconference space. Though two to three times what we are used to allowing, this amount ensures that local participants will see one another and the display of local and remote electronic images. It also ensures that participants at the far-end will see and hear everyone arriving at their location via the connection, and that all will see and hear at a level of quality that does not detract and, in the best deployment, even enhances the communications.

Having determined the required size of the space, we can move on to the actual renovation or construction of the space itself. Again the requirements here are generally less forgiving than those applied in local-only meeting spaces. In the most basic sense this is because, by sheer definition, at least some of the participants in a conference-based meeting are not actually in the room. As such, we cannot count on the typical human mechanisms (the human ears and brain and our ability to locate sound in three-dimensional space) to manage any acoustic anomalies.

If we are, for example, in a room that is adjacent to a double-door entry to the building, then knowing this we can take the inevitable doorway noise into account as we filter the sounds we hear both inside the meeting room and coming from that adjacent entryway. Within our own physical and local environment we have the ability to isolate local unwanted noise from local "sound of interest" (voices of other people, etc.), and place the unwanted noise in an inferior position in our conscious thought pattern. We are able to do this because we know where the noise is coming from and (usually) what is causing it. We may be annoyed by the noise, but we generally are able to ignore it. As soon as we add conferencing to the meeting equation, however, we add the element of electronic pickup and reproduction of all sounds. For the people at the far-end, the unwanted noise is much more difficult (if not impossible) to ignore. They do not have the ability to isolate it in three-dimensional space (the microphones eliminate the spatial reference) and they often do not know what is making the noise. The brain of the far-end participant will devote more and more conscious observation and thought energy to trying to work out these elements, in an attempt to isolate and finally "ignore" the unwanted sound. We have already stated that they cannot do this, however, due to the electronic separation between the locations. Thus they are left with an impossible task that takes up more and more thought energy, eroding the perceived quality of the spoken communication over time. Frustration and exasperation quickly set in, and the communication flow quickly falls apart.

This, then, is one reason we must pay even greater attention to the acoustic and visual issues for any presentation space that will be connected via conference to another. Minor, seemingly insignificant anomalies we often ignore in the local environment become significant impediments to smooth communication

with people at the far-end of any connection. In short, we must always ask ourselves, "What does this look like and sound like to the people at the farend?"

In order to guarantee that the final conference environment will have a solid foundation, we begin with the construction of the walls, floors and ceilings for videoconference spaces.

Walls

Conference room walls should be built from slab to slab. That is, there should be no gaps from the concrete of one floor to the concrete of the next floor. Resilient, gypsum board mountings should be used to close any gaps. The thickness of the gypsum board should be 5/8" or more (one layer of 5/8" and one layer of 1/2" bonded together would be ideal) on the inside of the room, with 1/2" thick (or as required by local building codes) appropriate for the outside of the walls. There should always be a difference in thickness between the materials used on the inner versus the outer walls. That difference in thickness subdues mechanical coupling (vibration) between the two layers. A good overall wall thickness is 6". It is recommended that "offset stud" construction be used, typically a 6" header and footer with 3.5" verticals attached in an alternating pattern one toward the outside of the footer, the next toward the inside and so on.

Fiberglass dense batting or mineral rock wool, 4" to 6" thick (the equivalent of R-11 to R-13) should be placed in the wall space. The thickness of the batting is not critical. The critical aspect is that it must be loosely placed in the wall space, not compacted to fit. The resultant wall will have excellent acoustic isolation from the outside world. More significant acoustic isolation can be achieved by placing an additional barrier layer within the wall space. Typically this barrier will be made of a dense polymer material, about 1/8" thick, and the improvement regarding loss of sound transmitted through the wall will be roughly a factor of 10. These materials are available from a variety of manufacturers.

Windows

Windows usually present the equivalent of an acoustic nightmare (as well as altering the way a camera renders colors and brightness). They not only transmit room sound, but also allow unwanted outside noise to intrude on the conference space. In the event that windows cannot be avoided, it becomes essential that window treatment of some sort be used. This treatment should match the interior look and feel of the space, while providing a high level of sound and light block. Typically a heavyweight drape (24 ounces or more) of heavy fullness (not less than 6" fullness on not less than 8" centers per fold) is preferred. In all cases, the use of sheer draperies or standard vertical or horizontal blinds should be avoided, due to their inherent inefficiency in blocking sound and light, and the fine lines they create within the camera field of view.

Ceiling Tiles

These should be high-quality acoustic tiles, ideally 1"- thick compressed densecore fiberglass. An added benefit of this kind of ceiling tile is that it works well with the indirect lighting as specified elsewhere in this section. To reduce any extraneous noise from leaving or entering the room via the ceiling space, the ceiling tiles can be blanketed completely from the plenum side, with a minimum of 6"- thick unfaced dense fiberglass batting or mineral rock wool, (the equivalent of R-15 to R-19). Here again, a barrier layer will improve the performance, but all local building codes must be followed for allowable materials in the various aspects of room acoustic modifications. To make entry and exit from the ceiling space easier, the blanket and barrier do not need to rest on the ceiling tiles, but may be suspended above it.

Air Conditioning

It is critical that all air-handling equipment (blowers, heat exchangers, solenoid valves, etc.) be located outside the physical meeting room space. This will prevent the noise burden associated with such equipment from affecting the participants of any meetings held in the room. Location of air-handling equipment within the ceiling space of a conference room often renders that room unusable for video or audio-only conferencing.

The air vents should be of open construction to eliminate "wind noise" while the system is running. These vents normally are specified as "low-velocity" diffusers. The number of air vents within the room should be sufficient to maintain a consistent temperature throughout the space. All HVAC ducts and diffusers should be oversized for the general application in the space, with minimum 2' diameter insulated flexible ducts and matching 2' noise dampening diffusers generally best. All ducts should be installed with gradual bends and curves rather than rigid 90-degree corners. This will minimize "thunder" sounds as the initial air pushes through the ductwork and into the room.

There should be a thermostat to control this specific room system independently of the rest of the building, and that control should be located within the room.

Important: Allow an additional 5,000 BTU of cooling capacity for a standard "roll-about" singlemonitor VC system with extended in-room peripherals (PC, document camera, scan converter, etc.) and a minimum of 10,000 BTU for a dual display multimedia presentation system with large screen displays. For the comfort of the participants, the room must accommodate these heat loads, plus the heat load of a room full of people, with minimal temperature rise.

Interior Design and Finishes

Wall colors within the field of view of the camera have a significant impact on the far-end perception of the room video quality. Certain colors are better suited to video rooms than others. The electronics and software of the videoconferencing system "builds" the images at the far-end from a gray/blue reference image. When there is a minimal difference between the room background and the reference image color, the codec has an easier time turning the image into numbers, with the result that the far-end will see a much higher quality video presentation. In general, light gray with just a touch of blue seems to work best. For rooms that have marginal lighting, slightly darker colors are quite useful.

In keeping with these color recommendations, the acoustic panels (discussed elsewhere in this section) should be ordered in light colors such as silver-gray, quartz or champagne for panels within the camera field of view. For aesthetics, however, panels may be alternated in color along the wall.

Furniture

As we have noted, VC rooms should be slightly on the large side for the typical number of attendees. The placement of furniture should present a natural rapport with the videoconference system, but shouldn't preclude the local interaction of conference participants. Doorways used for access to the space usually should be within the view of one of the camera presets to prevent the perception from the far-end that people could come into their meeting unseen. Doorways should not, however, be in constant, direct view of the camera system, as this may cause unwanted distractions and movement of people in the picture field.

Any tables within the conference environment should have a light top surface. Glossy tops should be avoided, as should strong colors or any bold wood grain. If glossy or saturated color surfaces are unavoidable, then proper lighting can help reduce (but not necessarily eliminate) their ill effects. The best table surface color is a flat satin finish, in neutral gray. In cases where the worst possible surfaces are present, the proper surface color effect can be achieved by using a table covering, put in place only when the room is being used for videoconferencing. This will, however, create problems related to the use of access ports in the tables or movement of end-user items across the surface.

Acoustics

Additional general elements related to the interior finish details for the space include acoustics. In terms of ambient noise level, the acoustic design goal for any conference- enabled room is at least NC-30 (NoiseCriteria-30). This level of specification dictates a very quiet space (somewhere around 40-dBCSPL

ambient noise level). A room built to the description found elsewhere in this section will usually fall between NC-30 and NC-35. The actual NC value is not critical; what is important is that the room be built with the intent and care required to achieve the low noise rating. Typically in architectural design, a site evaluation and analysis are required to certify the noise performance of a given space. The quieter the room, the easier it is to hear others in the same room as well as be heard by others who are participating via conference connection to a far-end location (or locations).

Almost every conference room of medium to large size (larger than 12'x15') requires some level of acoustic treatment to provide good speech-rendering to other conference sites. The quality differences lie in the areas of intelligibility and consistency of loudness as presented to the far-end. While the people at the far-end may hear the sounds coming to them, it may be hard for them clearly to distinguish all of the vowels, consonants, inflections and nuances of actual human speech communication. (We all know that it is not simply what you say but how you say it—i.e., the inflections and intonations—that makes the difference in perceived meaning in human communications.)

Good audio practice dictates that the treated surfaces be composed of at least two nonparallel walls. And, as the VCS hardware is a potential source of distracting fan noises, the walls to be treated should include the wall immediately behind the VCS hardware, whenever this hardware is within the conference room proper. To help prevent meeting audio from leaking into adjoining hallways or offices, the walls along those areas also should be treated.

Approximately 50 percent of the wall area needs be covered with acoustic panels. The type recommended is 1" thick compressed, dense-core fiberglass, fabric-covered, or equivalent, with a SABIN (sound absorption index) value of 0.9 average. This specification is sometimes referred to as NRC (noise reduction coefficient). If reduction of sound passing through is required, then an additional barrier layer is laminated to the dense-core material, usually 3/8" thick fiber compression board. The barrier layer is placed against the existing wall material, then the acoustic absorption panels are placed on the interior-room side of that. The barrier panels will have a SABIN of 0.9, but will have an additional specification of an STC (sound transmission coefficient) of 20. STC is a measure of the amount of reduction in loudness of sound passing through the material. Having an STC rating of 20 means there is a factor of 10 reduction in the amount of sound passing through that material. A high-quality conference room wall usually has an STC of 60 or more—that is, less than 1/1,000 of the sound in the room leaks through the wall.

Room Lighting

The brightness of the lighting in a videoconference room plays an important role in determining the far-end view of the meeting. When there are low to moderate amounts of light—20fc to 35fc (footcandles), typical office lighting—the distance range of "in focus" objects (depth-of-field) usually is

only 2′ or 3′ from nearest in-focus to furthest in-focus. With bright light (70fc or more) the range of in-focus objects can more than double. Participants at the far-end will see more people in sharp focus, and the codec will have an easier time encoding the image.

Bright standard direct fluorescent lighting has the undesirable side effect of being harsh for the local participants. In addition, the direct down lighting casts significant "drop shadows." The result is undue stress among participants.

The best plan for videoconferencing is to use indirect lighting for 80 to 85 percent of the light, and evenly distributed direct lighting for the remaining 15 to 20 percent. The indirect light will help minimize shadows on the faces of the participants, and make the room more comfortable for viewing the far-end on the TV monitor. The direct light can be used to create backlight separation between foreground and background objects or surfaces.

There should be not less than 55fc and ideally as much as 75fc of light (770lux) on the faces of the participants in the facial field as viewed by the camera in the conference space. The light should be completely even across the field of measure or view, and of one consistent color temperature.

To best meet these requirements, indirect fluorescent lighting most often is recommended. This type of lighting works by using the upper walls and ceiling as diffuse reflectors for the light. The usual recommended color temperature for these is 3,000 to 3,800 degrees Kelvin. If there is a significant quantity of outdoor light entering the room, the lamps should be more than 5,500 degrees Kelvin.

Light Fixtures

The light fixtures generally recommended for indirect lighting are available from a number of manufacturers. They typically are three-tube, 8" oval indirect up-lights, though they may take the form of chandelier-style pendant lights, wall sconces, cove lights or flushmounted specialized troughs. Many manufacturers work closely with contractors and lighting designers to ensure that the correct light levels and shadow-free zones are designed into the room, especially when used for videoconferencing. Lamps for these fixtures are available in a variety of specified color temperatures from numerous manufacturers, including Sylvania, General Electric and Osram/Phillips. Indirect fixtures are available in a number of different designs or "looks," and can be purchased in configurations that will complement and not detract from the interior design of the space.

Lighting layout recommendations and determination of the number of fixtures needed are handled either by the architectural design firm or by submitting a complete floor plan, including reflected ceiling, walls and furniture placement, to fixture vendors. The vendors will analyze the plans and return a finished lighting layout to the customer, detailing the number of fixtures, placement and required wiring.

It is important to remember that the use of traditional meeting room downcans—even those that have color-corrected light sources—for any lighting in the field of view that may include human faces is to be avoided at all costs. These will result in extremely uneven fields of light, or pools, and heavy, unnatural shadows on the faces of the participants.

Room Preparation Conclusion

When we follow the above guidelines we dramatically improve the odds for success in the final deployment of live bi-directional conference-based human communications. An added benefit is that this approach dramatically enhances the effectiveness of the room as it operates for more traditional meetings and presentations. The environment is more comfortable and flexible, and less dependent on specialized electronics for "fixing" deficiencies in the environment.

Audio Elements

Once the space is prepared, we can focus on integration of the various audiovisual tools within the environment: audio, video and control.

Audio Input

The primary input device for the audio portion of any conference system is the microphone. Elsewhere in this book [*Basics of Audio and Visual Systems Design*] we have discussed how these devices operate within a given acoustic environment. We turn now to a short discussion of how these elements operate within a conference environment, where such factors as "three-to-one" rules and "critical distance" often are pushed to the limit or violated entirely.

When sound travels in a room, it follows "the inverse square law." This means that the sound level heard at a microphone drops by a factor of four every time the distance doubles. Another important consideration in room audio design is the concept of "critical distance," or the distance at which the loudness of the room background noise plus reverberation is less than one tenth of the loudness of voices getting to a particular microphone. (This definition is the result of research conducted by Don and Carolyn Davis. that is referenced in the chapter "Designing for Intelligibility" in the Handbook for Sound Engineers.[1])

[1] Davis, Don and Carolyn. "Designing for Intelligibility" in Handbook for Sound Engineers: The New Audio Cyclopedia, ed. Glen Ballou (Indianapolis: Howard Sams & Co., 1991), 1279-1297.

As an example, we will work with a room having an ambient noise level of approximately 60dBA-SPL. A person speaking in a normal voice is 72dBA-SPL at about 2′ distance. At 4′ the loudness drops to approximately 66dBA-SPL. This already is farther than the critical distance criteria allow, given the ambient noise level. At 8′ distance, a normal speaking voice is approximately 60dBA-SPL. Now the voice energy and the room background noise are about equal. For "send" audio systems in a room to work correctly, therefore, the room noise level would have to be below 40-45dBA-SPL at the microphones at all times. This gives us some measure by which we can begin to plan the microphone array within a space, including selection based on pickup pattern, sensitivity, noise rejection and signal-to-noise in relation to the ambient noise floor or level within the space. The good news is that a room designed and built as described in this section will provide an acoustic space where almost any properly configured and installed audio system can operate with very good results.

Perhaps the most difficult issue for any room designer or system planner is actual microphone placement within the space. Given the fact that many people view conference table space as sacred (to be used for papers, laptops, coffee cups and other end-user items), there often is a great deal of pressure to place the local microphones on the ceiling instead of on the table surface. But this approach must be taken with great caution. We have already seen the dramatic impact of changes in the distance between people (their mouths) and the microphone. Ceiling systems generally place microphones farther away from the participants' mouths, not closer; critical distance calculations may eliminate ceiling placement from consideration for this reason alone. In addition, the ceiling surface generally is one of the noisiest areas of the room. Proximity to HVAC ducts and vents, attachment of tiles and runners to building members that are prone to vibration and shaking, and proximity to noise from other spaces migrating through the plenum make this area one of the least desirable for placement of microphones. This doesn't, however, keep people from looking at this broad open surface as the best place for microphones, to "get them off the table."

If ceiling placement is chosen, the system planner must select the components with great care from a manufacturer that specializes in this type of audio voice reinforcement. The manufacturer must be skilled in live audio and capable of installing the components (that is, being both able and willing to locate microphones at precisely measured distances from speakers, and locating those speakers at precisely measured intervals from each other and from the walls) to extremely tight tolerances. The system provider must fully inform the endusers of the potential downside effects of this approach. In any event, simply mounting a standard tabletop microphone on the ceiling tiles or implementing this solution in an ambient noise environment of 45dBA-SPL or greater will all but guarantee costly failure. No amount of post-microphone processing will fix the problems.

Audio Output

For conference communication we do not really care about producing the thundering roar of jet aircraft engines, or other sounds reproduced on TV or in the movies. We are interested in reproducing the human voice. The tone, intonation, pitch and level of people speaking from the far-end should sound as much as possible like the sound they would make if they were speaking in the room. Given what has been covered in other sections of this book [*Basics of Audio and Visual Systems Design*], we will touch base here on a couple of simple, basic elements of the speaker technology we deploy in the conference room. These basics fall into three subcategories: direction, power and range/frequency response.

Direction

As human beings, we feel most comfortable when the voice we hear appears to come from the same direction as the image of the person speaking. This means that reliance on ceiling speakers alone is not an ideal practice when the system is used for videoconferencing. In many small and medium-sized systems, front-firing speakers alone can provide proper direction and adequate coverage. Larger rooms (greater than 12'x15') probably need both front-firing and side or top-fill speakers in order to maintain proper coverage at nominal power levels.

In planning systems for larger rooms, we need to take advantage of the HAAS effect. Basically stated, this is the human brain's interpretation of sound direction when the same sound arrives at the ear from two or more directions within a certain time period. We attribute the direction of the sound to the direction from which the sound is first perceived, even if it is mixed with that same sound arriving from a completely different direction, as long as the two (or more) instances of the sound are within about 30ms of one another. Since sound travels faster electronically than it travels through the open air we may need to add audio delay to the side firing or ceiling speaker arrays in order to keep the primary perceived point source as the front of room/front-firing speakers.

Power

Power is a function of loudspeaker efficiency and total available system power. Most speakers operate in a power range that is broader than the range in which they operate without distortion. For the purpose of conference communication, we are interested in sound that has little or no distortion. Sound that is reproduced accurately (with no distortion) will most accurately represent the voice of the people from the far-end (our primary goal). Accurate reproduction also will aid the echo-cancellation circuitry in the system, minimizing the amount of echo that the system sends back to the people at the far-end, and thereby increasing perceived ease of intelligibility and understanding. Remember that any distortions present in the playback audio system—whether harmonic, amplitude (gain compression) or temporal (time

delays)—will be recognized by the echo canceller as "new audio information," and it will send those distortions to the far-end, perhaps wreaking havoc on the system audio quality. In short, speaker power should be matched to overall audio subsystem power. The speakers should provide adequate coverage and be able to present approximately 80 to 85dBA-SPL (continuous) at the local site with the system operating at nominal power utilization, and have a peak reserve of 15 to 20dB before distortion.

Range/Frequency Response

The human ear is able to hear sounds in a very wide range of frequencies (as low as 70Hz and as high as 12,000Hz). The human voice is able to produce sounds in a narrower range (100Hz to 8,000Hz). Most spoken communication occurs, however, in a range that is only 150Hz to about 6,000Hz. This means that we need to select speakers that operate with ideal performance in a fairly narrow range for human voice (as opposed to speakers used for music, that may have ranges of 20Hz to 20,000Hz). We must also be alert to the crossover characteristics of the speakers we select. Many coaxial and paraxial speakers have their crossover within the middle audio frequencies, thereby inducing potential distortion within the spoken frequency range and creating anomalies within the system that hinder voice communication.

Video Elements

As a general rule, any display used in a videoconferencing environment should be sized for the number of attendees, the physical distances involved and the type of material presented onscreen. The screen size should allow for clear and easy viewing at the various distances experienced within the room. A measure of required screen size that often is applied to projection technology is: no closer than 1.5 times the diagonal measure and no farther than 7 times that measure. Nobody should have to sit closer than 2 times the screen diagonal measure, nor farther than 8 times that measure.

Direct viewed tube-type displays (monitors) almost always are sharpest and brightest in a videoconferencing environment. "Retro-projector cabinet" displays (which look like largescreen TVs) are next in sharpness and brightness, and "front-screen" projectors come in last. Glare and uncontrolled ambient room lighting adversely affect the quality of the image most with front-screen projectors and least with direct view tubes. A very limited number of frontscreen projection systems have sufficient brightness and contrast to be useful in a properly lit videoconference room.

Video Projection for Use in Videoconference

Many installations make use of video projection devices. The most important thing to remember in the planning of video projection for a videoconference space is that front projection is vastly inferior to rear projection. Front projection systems are less expensive and easier to implement, but the conflicting interest between the camera and the projection display makes this form of display a very poor choice. Front projection setups operate best when the lighting in the room is dimmed or doused. When this is done, the videoconference cameras can no longer operate, since they require even, bright, color-corrected light. A direct conflict between these two technologies is clear. In the event that a rear projection room cannot be set aside, retro-projection units can be purchased from a number of manufacturers. These units normally are available in sizes ranging from 40" to 72" diagonal measure. To display high-quality video while maintaining optimum lighting for interactive video meetings will require a projector of the "light-valve" or DLP™ class.

Regardless of the exact type of projector selected and the exact nature of "front versus rear," there are certain essential rules for projector placement. The goal in projection is to get the image beam to aim directly into the audience's eyes. In Western cultures the average distance from the floor to a seated person's eye is 4'. That distance becomes the target for the direct beam of the projector. Again keep in mind that front projection should be avoided except in the most extreme cases. If it is employed at all it must be used with an extremely bright projector (2,500 lumens or greater for any space smaller than 25'x40').

Cameras

There usually is a "main" or "local people" camera positioned on top center of the display, so that it can "see" the participants and anything necessary at the sides of the room, using pan and tilt features. If individual presentations may be made from the side or "front of audience" area of the room, an additional camera should be located at the back of the room, also mounted to allow a view of the presenters when necessary. Some cameras contain an active camera pointing system that also can be used effectively, given proper care in the mounting of the camera assembly. The area immediately surrounding the camera assembly needs to be acoustically "dead" to ensure that the voice tracking and pointing algorithms work correctly. This is another reason to pay close attention to the acoustic environment and acoustic treatment of any space intended for use with this type of camera system.

If local presentation is blended with VC for any events, we must consider the needs of the presenter who will not be "facing" the local image or inbound image displays used by the main body of the local audience. One or two monitors (and a camera) should be mounted at the back of the "audience-end" of the room, with the horizontal centerline at approximately 5' from the floor for ease of presentation interaction between the presenter and the group(s) at the farend(s). Remember that, with the exception of PC-based information that is not in a standard composite narrowband video format, any information we

wish to “show” or “view” must be translated to video, most often with some sort of camera mechanism. Document cameras, 35mm slide-to-video units, video scanners and scan conversion devices all are designed to take one format of source material and convert it to a standard video signal that can be digitized, shipped to the far-end(s), and converted back to composite video for display. Which devices are selected and how they are used depends entirely on the needs and goals of the end-users of the system(s) and the format of their source materials.

Room Control Elements

To give all participants the easiest use of the room for any and all presentation or conference purposes, a fully integrated room controller is recommended. It is important that one controller operate all devices in the room so that only one user interface needs to be learned by those managing the facility. The common controller also makes it much easier to expand and enhance room capabilities over time by adding or upgrading equipment. A proper room controller can operate and coordinate the use of lighting, curtains, displays, audio devices, VCRs and slide projectors, as well as all the conferencing equipment, including any network-related control needed. In lieu of a complete control system, a limited functionality controller can be located at the presentation interface panel to control the switching and routing of the computer graphics and configure the overhead camera video paths.

It is strongly advised that at least 20 percent of the time spent developing a videoconferencing room be devoted to this important sub-system, as it will complete the integration of the conference and presentation environment.

And remember that simpler is always better. People do not pay for technology. They pay for the benefits that technology can bring. The doorway to those benefits is a simple, straightforward and intuitive user control.

B

Commands that Prompt Restart

The following commands return a prompt to restart the system.

`callpreference h320|h323|both`

`configdisplay monitor1 vga|s_video`

`defaultgateway set`

`dhcp off|client|server`

`dns set`

`enablesnmp`

`hostname set`

`ipaddress set`

`lanport`

`reboot yes`

`subnetmask set`

`snmpadmin`

`snmpcommunity`

`snmpconsoleip`

`snmplocation`

`snmpsystemdescriptionwebport`

`webport set`

`winsresolution yes|no`

`winsserver set`

The restart prompt is

`restart system for changes to take effect. restart now? <y,n>`

Typing `n` cancels the restart. Typing `y` returns `restarting in 3 seconds...` and the system reboots.

C

Status Messages

Status Display

The call status can be displayed in a number of ways. The `getcallstate (deprecated)` command on page 4-98 returns a table listing the status, speed, and dialed number of current calls.

To display real-time status on individual B channels (incoming or outgoing calls), either register the API session with the `callstate` command on page 4-30, or start an outbound call with the `dial` command on page 4-55. These two commands will cause the system to re-direct the B channel status messages to the session which has issued one of these two commands. For example, if the RS-232 device issues a `dial` command, then call status is directed to the RS-232 port; if a later session on a Telnet port issues a `dial` command, then call status is also directed to that Telnet port.

B Channel Status Message Example

The following output example is for B channel status messages, where:

cs	Indicates call status for one B channel.
RINGING	Indicates a ring-in or ring-out and is equivalent to a 25% blue sphere on the graphical user interface.
CONNECTED	Is equivalent to a 50% yellow sphere.
BONDING	Indicates the bonding protocol is operational on the channel and is equivalent to a 75% orange sphere.
COMPLETE	Is equivalent to a 100% green sphere.

Example:

```
->dial man 384 5551212 ISDN
Dialing manual
Dialing 5551212 384 none ISDN
cs: call[0] chan[0] dialstr[95551212] state[RINGING]
cs: call[0] chan[0] dialstr[95551212] state[CONNECTED]
cs: call[0] chan[0] dialstr[95551212] state[BONDING]
cs: call[0] chan[0] dialstr[95551212] state[COMPLETE]
cs: call[0] chan[1] dialstr[95551212] state[RINGING]
cs: call[0] chan[1] dialstr[95551212] state[CONNECTED]
cs: call[0] chan[2] dialstr[95551212] state[RINGING]
cs: call[0] chan[3] dialstr[95551212] state[RINGING]
cs: call[0] chan[2] dialstr[95551212] state[CONNECTED]
cs: call[0] chan[3] dialstr[95551212] state[CONNECTED]
cs: call[0] chan[4] dialstr[95551212] state[RINGING]
cs: call[0] chan[5] dialstr[95551212] state[RINGING]
cs: call[0] chan[4] dialstr[95551212] state[CONNECTED]
cs: call[0] chan[5] dialstr[95551212] state[CONNECTED]
cs: call[0] chan[1] dialstr[95551212] state[BONDING]
cs: call[0] chan[2] dialstr[95551212] state[BONDING]
cs: call[0] chan[3] dialstr[95551212] state[BONDING]
cs: call[0] chan[4] dialstr[95551212] state[BONDING]
cs: call[0] chan[5] dialstr[95551212] state[BONDING]
cs: call[0] chan[0] dialstr[95551212] state[COMPLETE]
cs: call[0] chan[1] dialstr[95551212] state[COMPLETE]
cs: call[0] chan[2] dialstr[95551212] state[COMPLETE]
cs: call[0] chan[3] dialstr[95551212] state[COMPLETE]
cs: call[0] chan[4] dialstr[95551212] state[COMPLETE]
cs: call[0] chan[5] dialstr[95551212] state[COMPLETE]
active: call[0] speed[384]
->
->hangup video 0
hanging up video call
cleared: call[0] line[1] bchan[0] cause[16] dialstring[95551212]
cleared: call[0] line[2] bchan[0] cause[16] dialstring[95551212]
cleared: call[0] line[0] bchan[0] cause[16] dialstring[95551212]
cleared: call[0] line[1] bchan[1] cause[16] dialstring[95551212]
cleared: call[0] line[2] bchan[1] cause[16] dialstring[]
cleared: call[0] line[0] bchan[1] cause[16] dialstring[95551212]
ended call[0]
```

```
-> listen video
listen video registered
->
->listen video ringing // there is an incoming call, auto answer is on
->cs: call[0] chan[0] dialstr[8005551212] state[RINGING]
cs: call[0] chan[0] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[0] dialstr[8005551212] state[BONDING]
cs: call[0] chan[0] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[1] dialstr[8005551212] state[RINGING]
cs: call[0] chan[1] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[2] dialstr[8005551212] state[RINGING]
cs: call[0] chan[3] dialstr[8005551212] state[RINGING]
cs: call[0] chan[2] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[3] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[6] dialstr[8005551212] state[RINGING]
cs: call[0] chan[6] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[4] dialstr[8005551212] state[RINGING]
cs: call[0] chan[5] dialstr[8005551212] state[RINGING]
cs: call[0] chan[4] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[5] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[7] dialstr[8005551212] state[RINGING]
cs: call[0] chan[7] dialstr[8005551212] state[CONNECTED]
cs: call[0] chan[1] dialstr[8005551212] state[BONDING]
cs: call[0] chan[2] dialstr[8005551212] state[BONDING]
cs: call[0] chan[3] dialstr[8005551212] state[BONDING]
cs: call[0] chan[6] dialstr[8005551212] state[BONDING]
cs: call[0] chan[4] dialstr[8005551212] state[BONDING]
cs: call[0] chan[5] dialstr[8005551212] state[BONDING]
cs: call[0] chan[7] dialstr[8005551212] state[BONDING]
cs: call[0] chan[0] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[1] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[2] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[3] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[6] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[4] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[5] dialstr[8005551212] state[COMPLETE]
cs: call[0] chan[7] dialstr[8005551212] state[COMPLETE]
active: call[0] speed[512]
```

D

Specifications

Inputs/Outputs

Audio Specifications

Characteristic	Value
Maximum Input Level 0 dBFS[2] for Audio Input 4	+12 dBV (4.0 V_{RMS}), 1 dB
Maximum Input Level 0 dBFS[2] for Audio Input 3 (VCR/DVD)	+12 dBV (4.0 V_{RMS}), 1 dB
Maximum Input Level 0 dBFS for Audio Input 1 (External Input, Line-Level)	20 dBV (100 mV_{RMS}), 1 dB
Input Impedance Audio Input 4 Differential	20 k, 5%
Input Impedance Audio Input 3 (VCR/DVD) Differential	20 k, 5%
Input Common-Mode Rejection Ratio Balanced Inputs, Common-Mode Amplitude ≤1 dBFS	>60 dB, 20 Hz to 22 kHz
Maximum Output Level Balanced Outputs (≥ 10 k Load)	+12 dBV (4.0 V_{RMS}), 1 dB
Output Impedance Balanced Outputs	150, 5%
Signal-to-Noise Ratio	>90 dB, A-weighted
Dynamic Range	>90 dB
Crosstalk and Feed-Through	≤90 dB, 20 Hz to 22 kHz

Characteristic	Value
Frequency Response Balanced Inputs, Relative to 997 Hz	 +0.5, 3 dB, 20 Hz to 50 Hz 1 dB, 50 Hz to 20 kHz +0.5, 3 dB, 20 kHz to 22 kHz
Total Harmonic Distortion + Noise vs. Frequency 1 dBFS Input Level 20 dBFS Input Level	 80 dB, 20 Hz to 22 kHz 70 dB, 20 Hz to 22 kHz
Phantom Power DC Voltage Level, Relative to Shield Termination DC Operating Current Fault Current Source Impedance	 +48, 4 Volts 10 mA 16 mA 6.8 k, 1%

DTMF Dialing

The Polycom HDX 9000 series systems generate the following tip/ring signal levels:

- Low-frequency tone: 10.2 dBV, -8.0 dBm when AC termination of the line is 600 Ohms
- High-frequency tone: -8.2 dBV, -6.0 dBm when AC termination of the line is 600 Ohms
- The system seizes the line and waits 1.5 seconds. The number is then dialed with a 80 ms tone period followed by a 80 ms silence period for each digit.

Remote Control

This section provides information about the IR signals for Polycom HDX systems.

This information is provided for reference only. Polycom claims no responsibility or liability for programmed third-party remote control devices.

Notes

- Wake up – 2.6 ms on; 2.6 ms off
- 0–559 µs (22 pulses at 38 KHz) on; 845 µs (33 pulses at 38 KHz) off
- 1–845 µs (33 pulses at 38 KHz) on; 1192 µs (46 pulses at 38 KHz) off
- EOM–559 µs (22 pulses at 38 KHz) on
- System Code consists of a User ID field (upper nibble) and the Polycom Vender Code (lower nibble) with value 0x5. The default User ID value is 0x3, so the default System Code value is 00110101 or 0x35.
- Parity is a 2-bit field consisting of a "parity" bit (b1) and a "toggle" bit (b0). Parity is even.
- Inter-burst timing is 2200 pulse times at 38.062 KHz or 57.8 ms
- 38.062 KHz signal is at 1/3 duty cycle to LED
- Multi-bit fields are transmitted most significant bit first
- Bits are labeled b0..bn, where b0 is the least significant bit

Protocol is: <Wake up> + <System Code> + <Key Code> + <Parity> + <EOM>

Key Name	Key Code	Key Code	Parity
#	1100	0CH	Even
*	1011	0BH	Odd
0	110000	30H	Even
1	110001	31H	Odd
2	110010	32H	Odd
3	110011	33H	Even
4	110100	34H	Odd
5	110101	35H	Even
6	110110	36H	Even

Key Name	Key Code	Key Code	Parity
7	110111	37H	Odd
8	111000	38H	Odd
9	111001	39H	Even
Auto	11001	19H	Odd
Call	100101	25H	Odd
Call/Hang Up	11	03H	Even
Camera	11110	1EH	Even
Colon	101111	2FH	Odd
Delete	100010	22H	Even
Dial String	0	00H	Even
Directory	11010	1AH	Odd
Dot	100001	21H	Even
Down Arrow	110	06H	Even
Far	10001	11H	Even
Fast Forward	101011	2BH	Even
Feet Down	10110	16H	Odd
Feet Up	11000	18H	Even
Hang Up	100110	26H	Odd
Home	11011	1BH	Even
Info (Help)	10100	14H	Even
Keyboard	100011	23H	Odd
Left Arrow	1001	09H	Even
Low Battery	10111	17H	Even
Menu (Back)	10011	13H	Odd
Mute	111010	3AH	Even
Near	1111	0FH	Even
Option	101000	28H	Even
Pause	101101	2DH	Even
PIP	11101	1DH	Even
Play	101001	29H	Odd

Key Name	Key Code	Key Code	Parity
Power	100111	27H	Even
Preset	11111	1FH	Odd
Record	101110	2EH	Even
Return	111	07H	Odd
Rewind	101100	2CH	Odd
Right Arrow	1010	0AH	Even
Slides (Graphics)	10010	12H	Even
Snapshot (Snap)	10101	15H	Odd
Stop	101010	2AH	Odd
Up Arrow	101	05H	Even
Volume Down	111100	3CH	Even
Volume Up	111011	3BH	Odd
Zoom In	1101	0DH	Odd
Zoom Out	1110	0EH	Odd

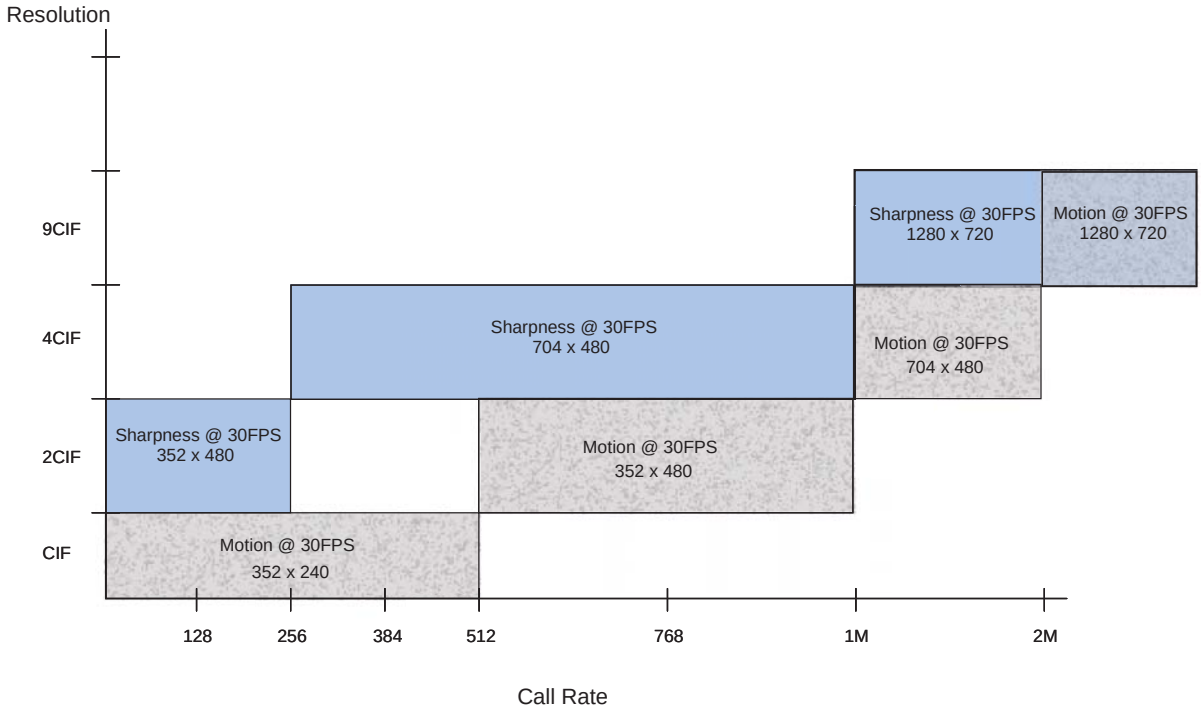
RS-232 Serial Interface

The RS-232 serial port is implemented by an FPGA-based UART (Universal Asynchronous Receiver/Transmitter) that supports the following values.

Mode	Baud Rate	Parity	Stop Bits	Data Bits	Flow Control
Control	9600 (default), 14400, 19200, 38400, 57600, 115200	None	1	8	Off
Camera PTZ	9600 (default), 14400, 19200, 38400, 57600, 115200	None (Sony), Even (Polycom Eagle Eye)	1	8	Off
Closed Caption	9600 (default), 14400, 19200, 38400, 57600, 115200	None	1	8	Off
Vortex Mixer	9600 (default), 14400, 19200, 38400, 57600, 115200	None	1	8	Off (default), On
Pass Thru	9600 (default), 14400, 19200, 38400, 57600, 115200	None (default), Even, Odd	1 (default), 2	8	Off (default), On
Polycom Annotation	9600	None	1	8	Off
Interactive Touch Board	9600	None	1	8	Off

Resolution vs. Call Rate

The following illustration shows call rates versus resolution selections for Polycom HDX system Motion and Sharpness settings.



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